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MONTANA AIR MONITORING

NETWORK REVIEW

FOR 1996

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MONTANA AIR MONITORING NETWORK REVIEW FOR 1996

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) requires the Montana Department of Environmental Quality (MDEQ) to conduct an annual review of the State's ambient air monitoring network. The 1996 Network Review follows a format that was used for the 1995 Network Review.

EPA's requirements for an annual network review are in 40 CFR 58.20(d). These requirements maintain that the State must conduct a review (1) to determine if the system meets the monitoring objectives defined in Appendix D of Part 58, and (2) to identify needed modifications of the network, such as the termination or relocation of unnecessary stations or the establishment of new stations which are necessary.

The Department is required by 40 CFR 58.25 to develop and implement an annual schedule modifying the network in order to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the Regional Administrator of EPA during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval of the Regional Administrator.

This document and subsequent revisions are intended to satisfy those annual requirements.

1.1 NETWORK REVIEW PROCESS

In order to conduct this review, the monitoring objective and the spatial scale of representativeness of each station, existing or proposed, are first examined to determine whether they represent the air quality situation of the area. Background information, such as maps, climatological summaries, emission inventories, traffic counts, and modeling results are gathered and reviewed. The opinions of the Department staff, the personnel of the seven approved county air pollution agencies, as well as several other county health agencies, and staff members of EPA are also solicited.

In the 1979 Network Review, the Department designated each monitoring site in the State as either National Air Monitoring Station (NAMS), State and Local Air Monitoring Station (SLAMS), or Special Purpose Monitoring station (SPM). The NAMS/SLAMS network is designed to meet four basic monitoring objectives. The basic monitoring objectives are as follows:

1. To determine highest concentrations expected to occur in the area covered by the network.

2 To determine representative concentrations in areas of high population density.

3. To determine the impact on ambient pollution levels of significant sources or source categories.

4. To determine general background concentration levels.

The link between the basic monitoring objectives and the physical location of a particular monitoring site involves the concept of spatial scales of representativeness. The spatial scale is determined by the physical dimensions of the air parcel nearest a monitoring station throughout which the actual pollutant concentrations are reasonably similar. The goal in siting stations is to match the spatial scale represented by the sample of monitored air with a spatial scale most appropriate for the monitoring objective. Spatial scales of representativeness, as specified by EPA, are described below:

Microscale -	defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
Middle scale -	defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometers.
Neighborhood scale-	defines concentrations within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometer range.
Urban scale -	defines the overall, citywide conditions with dimensions on the order of 4 to 50 kilometers. This scale would usually require more than one site for definition.
Regional scale -	defines a rural area of reasonable homogeneous geography and extends from tens to hundreds of kilometers.
National and Global scales -	these measurement scales represent concentrations characterizing the nation and the globe as a whole.

In order to site a monitoring station properly, both the monitoring objective and the spatial scale of representativeness must be determined. Appropriate siting scales for the various monitoring objectives are listed below.

Monitoring Objective	Siting Scales
Highest Concentration	Micro, middle, neighborhood (sometimes urban)
Population	Neighborhood, urban
Source Impact	Micro, middle, neighborhood
Background	Neighborhood, regional

The goal in siting stations is to match correctly the spatial scale represented by the sample of monitored air with the spatial scale most appropriate for each station's monitoring objective. The use of this physical basis for locating stations allows for an objective approach, ensures compatibility among stations and provides a physical basis for the interpretation and application of data. The annual review process involves an examination of existing stations to evaluate their monitoring objectives and spatial scale. The results of this review will determine whether sites are deleted, added, or modified. Further details on network design can be found in Appendix D to 40 CFR 58.

1.2 GENERAL MONITORING NEEDS

Montana is a large state (147,138 square miles, the fourth largest in the nation) but has a small population (799,065 - 1990 census). Some of Montana is pristine and altered little by man's hand. However, Montana does have air quality problems.

1.2.1 PARTICULATE

Particulate matter is Montana's major air pollution problem and receives a high priority from Department staff. The major sources of particulate are traffic on paved and unpaved roads, residential wood combustion (RWC), industrial activity, coal mines, and agricultural activity. For years the State was concerned with total suspended particulate (TSP) and sought ways to control its sources. As a result of the 1977 amendments to the Clean Air Act, several areas of the State were designated non-attainment of either the primary or secondary standard for TSP. The Department developed emission control plans as part of the State Implementation Plan (SIP) to bring the areas into compliance and implemented control strategies.

On July 31, 1987, the EPA promulgated new ambient air quality standards for particulate matter. The new standards changed the focus from larger particles (TSP) to smaller inhalable particles known as PM_{10} (particles with an aerodynamic diameter less than or equal to 10 microns). As a result of this standard, the EPA assigned various parts of Montana to one of three categories. Seven communities were identified as Group I areas (likely to violate the standards), six as Group II areas (may violate the standards) and the rest of the state was considered Group III. Group III areas are not necessarily in compliance since data may not be available for determination. Since this original classification, two of the Group II areas have exceeded the standard. They are called "Group II with exceedances" but are treated as Group I. Due to provisions in the Clean Air Act Amendments of 1990, all Group I areas and Group II areas with exceedances were designated non-attainment. The non-attainment provisions of the Clean Air Act mandate definite schedules to show attainment and provide for sanctions and federal oversight if the scheduled dates are not met.

The Department has been heavily involved with monitoring and planning activities and is developing area-wide control plans to bring non-attainment areas into compliance. The PM_{10} non-attainment areas continue to require a significant commitment of resources for the SIP development process.

1.2.2 SULFUR DIOXIDE

Sulfur dioxide (SO_2) is another pollutant of concern in the State. There are only four areas in the State where SO_2 is an issue or a problem. These are the Billings/Laurel area, East Helena, Colstrip, and Great Falls. In all cases the sources for SO_2 are industrial point sources.

In the Great Falls area the primary source of SO_2 is the Montana Refining petroleum refinery. As the result of dispersion modeling performed in support of a permit application by Montana Refining potential exceedances of the SO_2 NAAQS were identified. The permit subsequently required SO_2 monitoring at the identified "hot spot". The Wire Mill Road site (AIRS# 30-013-2000) began reporting valid data on November 14, 1994.

In the Billings/Laurel area, the industrial sources of SO_2 include a coal-fired power plant, a coke-fired cogeneration power plant, three oil refineries, a sugar beet processing facility and a sulfur recovery facility. The combined source mix contributes to some high ambient readings. In 1977, the Laurel area was designated non-attainment for SO_2. In December, 1977 a stipulation was signed with the Billings/Laurel industries and the State. This stipulation was incorporated into the SIP and was the tool to bring

the area into compliance. Subsequent monitoring networks for SO_2 have shown the area to be in compliance with the National Ambient Air Quality Standards (NAAQS) but exceeding the Montana Ambient Air Quality Standards (MAAQS).

In 1987, the Montana legislature passed a bill changing the MAAQS to NAAQS for existing sources in the Billings/Laurel area. Following the session, a committee of the Billings/Laurel industries, the local chamber of commerce, and air pollution professionals formed to monitor and report on the area's air quality. The aim of the committee was to arrive at some solutions to the SO_2 problem of the area. Due to interest by the EPA and environmental groups, the State and Billings/Laurel industries conducted peak five-minute monitoring for SO_2 during the winter of 1990-91. An EPA contractor reviewed the peak five-minute data and its relationship to the hourly averages (peak-to-mean ratios). The results of this review were inconclusive. No additional peak five-minute monitoring for SO_2 is planned by the Billings/Laurel industries. However, the State continues to collect peak five-minute SO_2 data at its sites.

In 1990, EPA contracted with E. H. Pechan and Associates to develop a sulfur dioxide emission inventory for the Billings/Laurel area. The final report was submitted to EPA in 1991 and indicated a large difference between actual and potential sulfur dioxide emissions for most sources.

The City of Billings contracted with GeoResearch Inc. in 1990 to conduct a sulfur dioxide dispersion modeling study for the Billings area utilizing recently gathered meteorological data and the Pechan SO_2 emission inventory. The results of the dispersion modeling study predicted violations of the sulfur dioxide NAAQS at both the potential to emit and maximum actual emission rates.

In 1991, Billings Generation Inc. (now Yellowstone Generation Inc.) submitted a permit application for construction and operation of a coke-fired cogeneration power facility located adjacent to the Exxon Refinery. Dispersion modeling performed in support of the permit application also predicted violations of the sulfur dioxide NAAQS in the Billings area as well as Prevention of Significant Deterioration increments. The permit for BGI was granted in March 1992, and required a reduction in sulfur dioxide at the Exxon Refinery.

In a March 4, 1993, letter to the Governor of Montana, EPA stated that it determined the sulfur dioxide SIP for the Billings/Laurel area to be substantially inadequate and that it must be revised. The basis for the determination was the modeling results from the GeoResearch study and the Billings Generation Inc. permit application which predicted violations of the NAAQS for sulfur dioxide. In addition, EPA determined that the existing SIP

did not provide enforceable methods to ensure compliance with the NAAQS.

In response to EPA's March 4, 1993 notification, MDEQ, in cooperation with the Billings area sulfur dioxide emitting industries, prepared a major revision to the Billings sulfur dioxide SIP. Although not yet complete, the revision provides for attainment and maintenance of the NAAQS. The SIP revision includes a detailed emission inventory, approved dispersion modeling, emission limitations, and methods to monitor compliance. The emission limitations and continuous emission monitors required by the SIP revision will be implemented by March 4, 1998.

In East Helena, the industrial source of SO_2 is a primary lead smelter. In 1977, the area was designated non-attainment for SO_2. The smelter installed an acid plant and modified stacks to reduce sulfur dioxide emissions. Data from monitors in the immediate vicinity of the smelter have shown exceedances but no violations of the NAAQS or MAAQS. There were some "violations" of the three-hour NAAQS in 1987 at an SO_2 site about four miles from the smelter near a cement manufacturing facility. A data review did not determine any cause for the high readings and it was difficult to determine if the readings were valid. No other violations have occurred since this time.

In April 1991, EPA notified the Department that the East Helena SO_2 SIP was inadequate, needed to be revised and submitted to EPA by May 1992. This request was driven by an inadequate GEP stack height analysis and requirements in the Clean Air Act Amendments of 1990. The East Helena SO_2 SIP revision for the annual and 24-hour NAAQS was approved by EPA on March 28, 1995. The East Helena SO_2 SIP for the 3-hour NAAQS will be completed in 1996.

In Colstrip, the industrial sources for SO_2 are four coal-fired power plants. Colstrip Units #1 and #2 were permitted in 1973 by the State. Unit #1 was commissioned in October 1975 and Unit #2 in August 1976. The units utilize wet scrubbers for SO_2 control with an efficiency of 70%.

In 1978, EPA issued a permit for Colstrip Units #3 and #4. EPA was the issuing agency because, at this time, the State had not been delegated PSD permitting authority. The issue of impact on the Northern Cheyenne PSD Class I area resulted in higher stacks and greater control efficiencies for Units #3 and #4. These units use wet scrubbers with lime injection resulting in an SO_2 control efficiency of 90%.

The company maintains an ambient network around the facility and supports a tribal air monitoring program on the Northern Cheyenne reservation. The tribal network consists of three sites:

Morning Star (30-087-0760), Garfield Peak (30-087-0761), and Badger Peak (30-087-0762). Data submitted by the company are very low and show no violations of the NAAQS or MAAQS.

1.2.3 LEAD

Lead (Pb) is a pollutant of concern in East Helena where the predominant source is the ASARCO primary lead smelter. The EPA promulgated ambient air quality standards for lead on October 5, 1978 and based on monitoring data, the East Helena area was determined to be in violation of the lead standard. The Department conducted extensive studies in the early 1980's to determine source apportionment. A SIP was developed and approved by the EPA in 1984 which contained control strategies expected to bring the area into compliance.

As of December 31, 1986, all the control strategies in the plan were implemented but ambient air monitoring data for 1987 and 1988 indicated that although lead levels decreased, they remained above the lead standard. As a result, the EPA notified Montana on October 1, 1988, that the East Helena lead SIP was inadequate.

From 1990 through the first half of 1995, the State, Asarco, American Chemet, and involved contractors conducted ambient monitoring, emission inventory estimations, source apportionment studies, meteorological data collection, and dispersion modeling in support of a second, or revised, SIP. The revised SIP was completed and submitted to EPA on August 16, 1995, and is expected to bring the East Helena area into attainment by the second quarter of 1997.

1.2.4 CARBON MONOXIDE

Carbon monoxide (CO) is a pollutant of concern in the larger communities in Montana. Currently, there are three CO non-attainment areas in Montana; these are Missoula, Great Falls and Billings. In 1996, Kalispell has an 8-hr NAAQS CO violation and could be designated non-attainment in the near future. Automobile exhaust is the principal source of CO emissions in these communities. Other sources include industrial emissions as well as agricultural and forestry burning. In western Montana residential wood combustion is a contributing source to ambient CO levels.

The Department, in cooperation with the various county air pollution agencies, monitors for CO in Missoula, Great Falls, Kalispell and Billings. Most high concentrations occur in wintertime months due to stagnant weather conditions, cold temperatures, and poor fuel combustion from the various sources.

Draft carbon monoxide emission inventories for Billings, Great Falls, and Missoula, using 1990 as a base year, were submitted to EPA in the summer of 1992. The Department received EPA's comments on the inventories in December 1992. The final CO emission inventories for Billings and Missoula were submitted to EPA in July 1995. The Great Falls CO emission inventory (base year 1990) is currently under review for completeness, and has been submitted to EPA.

Due to provisions in the Clean Air Act Amendments of 1990, Missoula was categorized as a "moderate" non-attainment area. This label was given because the design value was greater than 9.5 ppm for an eight hour period. The State submitted a revised SIP to EPA for Missoula, based on an oxygenated fuels program, on November 6, 1992. The oxygenated fuels program was started October 1, 1992. Billings and Great Falls were categorized as "unclassified" under the CAAA. This label was given because the design values for these communities were less than 9 ppm. The State plans to submit community-specific maintenance plans to EPA, for these two communities, at the time the re-designation requests are made.

1.2.5 OZONE

Ozone (O_3) is not a pollutant of major concern in Montana. All areas of the State are considered attainment for ozone. Unlike most other pollutants, O_3 is not emitted directly into the atmosphere but results from a complex photochemical reaction between volatile organic compounds (VOC), oxides of nitrogen (NOx), and solar radiation. Both VOC and NOx are emitted directly into the atmosphere from sources within the State. Since solar radiation is a major factor in O_3 production, O_3 concentrations are expected to peak in the summer months.

The Department conducted O_3 monitoring in Billings in 1988 and 1989, and is considering monitoring again near Billings from June through September, 1998. Billings is in an area where sources emit fairly large quantities of VOC and Nox. Billings also has hot summer days which may promote photochemical reactions. The data previously collected showed higher concentrations in the summer months but were all within the NAAQS.

1.2.6 NITROGEN DIOXIDE

Nitrogen dioxide (NO_2) is not a pollutant of concern in Montana. NO_2 is formed when nitric oxide (NO) is oxidized in ambient air. Oxides of nitrogen (NOx) is a term used to represent both NO_2 and NO. Emission inventories for point and area sources are usually expressed as NOx whereas the standard is for NO_2.

Point sources of NO or NO_2 in the State include coal-fired power plants, natural gas compressor stations, and other miscellaneous industries such as oil refineries and a kraft paper pulp mill. Mobile sources only include automobile tailpipe emissions.

The Department has done no monitoring for NO_2 in the last eight years. However, there has been some company monitoring for NO_2 in Colstrip and Missoula. These monitoring activities were required as conditions of PSD permits. Data submitted by the companies have shown no violations of the NAAQS or MAAQS.

1.2.7 AIR TOXICS

Air Toxics covers a far-ranging suite of hazardous substances, emitted in either gaseous or particulate phases. For many years the only air toxics measured in Montana were various heavy metals (e.g. lead, arsenic, cadmium, chromium, etc.) that are associated with particulate emissions from the minerals industry.

Sources of air toxics are as diverse and as numerous as the compounds themselves. Some point sources include the oil and gas industry, minerals extraction and processing, chemical and cement plants, and the wood products industry. Some area-wide sources include dry cleaners, gas stations, residential wood combustion and motor vehicle repair/refinishing facilities. Mobile sources include tailpipe emissions from automobiles, light and heavy-duty trucks, trains and airplanes.

The Department and Missoula County conducted a formaldehyde screening study, in Missoula, for the winter of 1993-94. The study showed that atmospheric formaldehyde concentrations in Missoula were low. There is another screening study, for various gaseous compounds, being discussed for Missoula. Tentatively, the study is scheduled for the winter of 1996-1997.

1.3 NETWORK MONITORING HISTORY

From the inception of the Montana air quality program, the Department has developed and maintained an air monitoring network covering problem areas throughout the State. In the 1960's the Department used high volume samplers (hi-vols), dustfall jars, "Montana Boxes" (for fluoride), and sulfation plates to assess ambient air quality impacts from various sources. Initial program development selected monitoring locations based on field investigations, complaints, surveys, public interest and professional judgement of the staff.

In the early to mid-1970's, other monitoring devices were purchased. These included gas bubblers for SO_2 and NO_2, hi-vols with metal shelters (early versions were made of wood), and continuous analyzers, particularly for SO_2. During this time period, metals analyses began on hi-vol filters collected near smelting and mining activities.

From mid to late 1970's, the monitoring effort was refined as more sophisticated equipment became available and was deployed in the field. The State became involved in several special-purpose air pollution studies. The Department conducted the Montana Air Pollution Study (MAPS) in which extensive ambient air monitoring was performed in Anaconda, Butte, Billings and Missoula. The purpose of the study was to relate air pollution concentrations with measured human health effects within and between the different communities. The Department published several documents detailing the results of these studies.

At about the same time, the Department was also involved with investigative and background studies for the Flathead River Basin EIS (Kalispell, Columbia Falls, Polson, etc.), Poplar River project (by Scobey in northeast Montana), and energy development in eastern Montana (particularly in the Colstrip area).

As a result of the 1977 Amendments to the Clean Air Act, several areas in Montana were designated non-attainment for various NAAQS based on air quality data. Air quality monitoring increased in these areas as SIPs were being developed. Field sampling, emission inventory estimates and dispersion modeling allowed staff to focus on worst-case or maximum concentration sites. This applied mostly to CO and TSP non-attainment areas.

In 1978, the EPA promulgated a standard for lead (Section 1.2.3). Emphasis on lead monitoring and investigations to determine maximum concentration sites were conducted in the East Helena area as part of the original SIP. The present day network evolved from this study.

In 1981-82, an SO_2 surveillance network was established as a

condition of the 1977 Stipulation with the Billings/Laurel industries and the State. The network, at that time, contained eight SO_2 monitoring sites equipped with meteorological sensors and one upper air station. Industrial locations, topography, wind roses, emission estimates and past ambient data were used to situate the sites in maximum concentration locations or where the public may be affected.

In East Helena and Colstrip SO_2, meteorological, TSP, NOx, and Pb, monitoring networks were set up which essentially encircled the point sources. These multiple site networks allow adequate coverage (regardless of the wind direction) to determine maximum concentrations from the sources.

The Montana air quality program changed further with the formation of SAMWG. At the request of the EPA Deputy Administrator, the Standing Air Monitoring Work Group (SAMWG) was formed in 1975. This group was made up of people representing state and local air pollution control agencies, EPA Headquarters and EPA regional offices. The purpose of the group was to critically review and evaluate current air monitoring activities, develop more effective air monitoring strategies, help correct identified problems, improve overall current operations and meet projected air monitoring goals.

SAMWG developed a number of recommendations. These were promulgated in the Federal Register on May 10, 1979 and later updated on March 19, 1986 and July 1, 1987 (40 CFR Part 58).

The areas covered included:

Appendix A - Quality Assurance Requirements for State and Local Air Monitoring Stations.

Appendix B - Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring.

Appendix C - Ambient Air Quality Monitoring Methodology.

Appendix D - Network Design for State and Local Air Monitoring Stations and National Air Monitoring Stations.

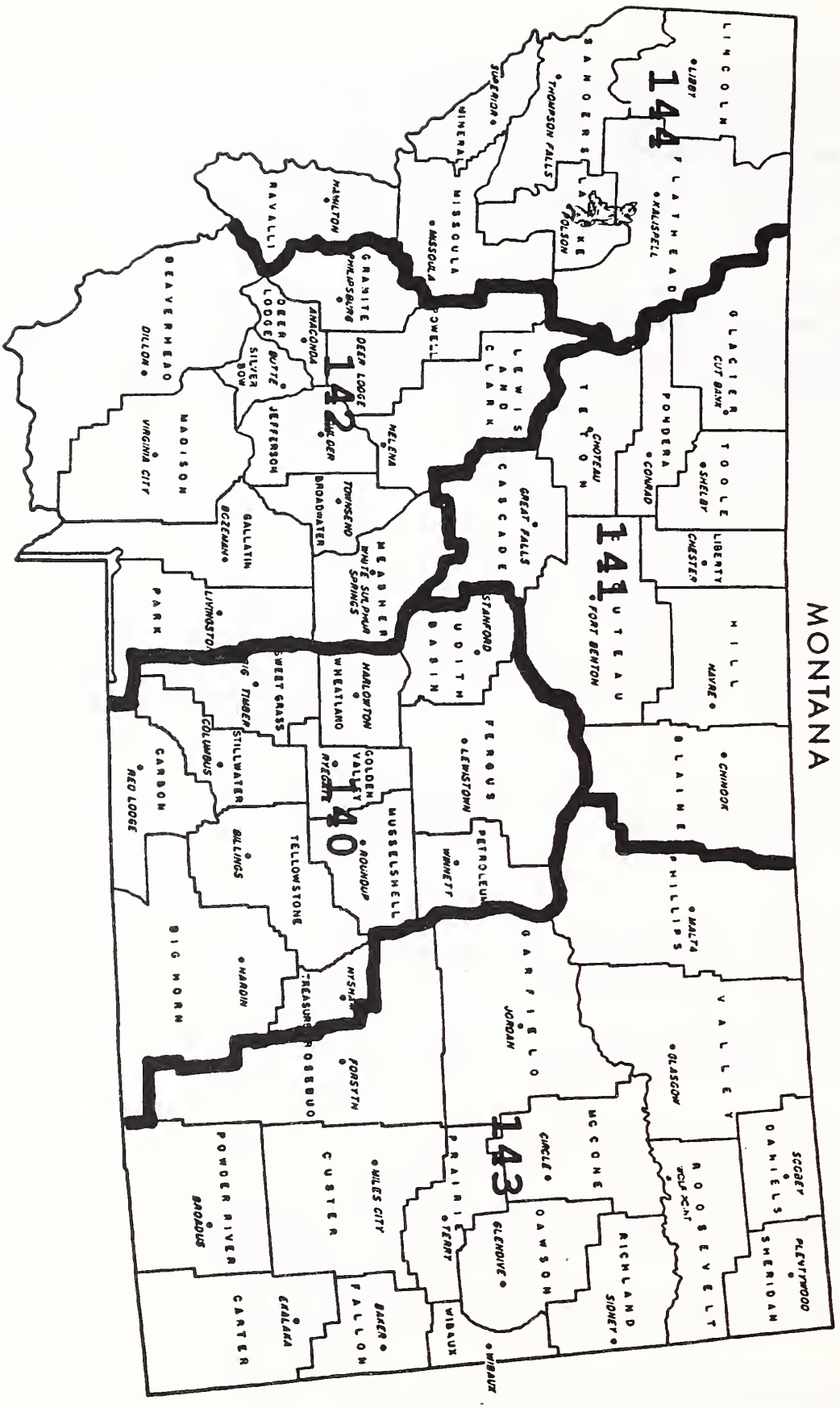
Appendix E - Probe Siting Criteria for Ambient Air Quality Monitoring.

Appendix F - State and Local Air Monitoring Stations Air Quality Annual Report.

Appendix G - Uniform Air Quality Index and Daily Reporting.

Appendices D and E include network review, design and siting criteria. In the State's first network review (1979 Network Review) the Department designated each monitoring site in the State as either a National Air Monitoring Station (NAMS), State and Local Air Monitoring Station (SLAMS), or Special Purpose Monitoring station (SPM). The NAMS/SLAMS network was developed to meet the four basic monitoring objectives as listed in Section 1.1.

Table 1 at the end of this report gives a brief description of the state-wide ambient air monitoring network. The table lists all sites operated by the Department, county agencies and some operated by industrial concerns. The table provides a narrative regarding any changes or modifications to the sites. It also lists any proposed sites.



Montana Air Quality Control Regions

2.0 AMBIENT MONITORING NETWORK COVERAGE

This section addresses air quality problems and concerns in Montana. It is a continuation of discussions presented in Section 1.2 regarding specific pollutants and problem areas. Each of the EPA criteria pollutants is discussed regarding data collection and appropriate correlations. Each pollutant is discussed individually within specific sections for each Air Quality Control Region (AQCR) and county.

The review analyzes emissions, ambient, meteorological and other data related to specific sites or problem areas. The review is intended to show that existing monitoring sites should continue to operate because they still serve a purpose or are not needed and should be terminated. There are some instances where some sites may need to be modified in order to meet an intended purpose.

The 1996 Network Review also contains meteorological data collection. The Department uses various weather instruments to measure parameters such as wind speed, wind direction, and temperature. These values are used in support of the analysis of air pollution data and to estimate pollutant concentration through dispersion models.

2.1 SULFUR DIOXIDE AREAS

As mentioned in Section 1.2.2, there are only four areas in the State where SO_2 is an issue or concern. These are the Billings/Laurel area in Yellowstone County, East Helena in Lewis & Clark County, Great Falls in Cascade County, and Colstrip in Rosebud County.

2.1.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.1.1.1 YELLOWSTONE COUNTY

The sulfur dioxide issue in Yellowstone County has been with the air quality program since its inception in the mid to late 1960's. Early monitoring with sulfation plates and SO_2 analyzers showed that the Laurel area exceeded air quality standards and the Billings area measured elevated levels.

There are seven major sources in the Billings/Laurel area which emit SO_2. In Billings, these include Exxon (oil refinery), Conoco (oil refinery), Montana Power (coal-fired electric power generating facility), Western Sugar (sugar beet factory), Yellowstone Energy Limited Partnership (coke-fired cogeneration power plant), and Montana Sulphur & Chemical (sulfur recovery facility). In Laurel, the major source is the Cenex oil refinery. Total SO_2 emissions for these sources for 1995 are estimated to be

23,720 tons/year.

Billings and Laurel are situated along the Yellowstone River Valley in south central Montana. The Yellowstone River Valley runs from southwest to northeast and is a predominant topographical influence on the airflow in the area. In Billings, there are cliffs or rimrocks located both north and south of the river which also tend to cause channeling. The distance between the north and south rims range from about one to five miles. In Laurel, the valley tends to be a little wider and the predominant high terrain is not close by. The cities of Billings and Laurel and all of the industrial sources are located along the river valley. Nearby terrain is often higher than the highest smoke stacks.

Wind roses in the area are reflective of the valley orientation. The predominant wind direction is from the SW with NE being the second most predominant direction. As with many areas in Montana, the area experiences inversions in the fall and winter months. This causes pollutants to become trapped and build up for extended periods. Inversion breakup occurring after sunrise causes built-up concentrations to lower to the ground and results in elevated readings measured at the monitoring stations. With frontal passage or higher wind speeds, winds can cause plumes to directly impact the ground resulting in high SO_2 concentrations.

In 1977, a stipulation was signed between the Department and the Billings/Laurel industries. The stipulation (requiring the industries to employ various control options) was the framework used to bring the area into compliance with ambient standards. In 1978, the Laurel area was designated non-attainment of the NAAQS for SO_2. The stipulation became part of the SIP and was approved by EPA. The 1977 stipulation also commissioned the Department (with industrial funding) to conduct an ambient air quality study to more fully describe the magnitude and geographical extent of the SO_2 concentrations. Another major goal of the study was to identify the relative source contributions from each industry.

In 1981-82, the Department (through a cooperative effort with the industries) designed and installed a sulfur dioxide monitoring network. The network consisted of eight SO_2 monitoring sites with meteorological monitors and an upper air site employing acoustic radar and pilot balloons. Six of the SO_2 sites were in Billings and two were in Laurel. Using this data, the Department attempted to validate a mathematical model that could predict concentrations from the various SO_2 sources. These attempts failed due to the following reasons: (1) a lack of good emissions data; (2) high concentrations caused by inversion breakup and direct plume impact (which the model could not handle); (3) over-prediction of plume rise by the model; and (4) receptors being so close to the sources that small changes in wind direction could cause large differences in predicted versus actual concentrations. A novel approach was

developed using directional analysis and mass emissions to characterize source contributions to the annual average at the worst-case receptor. This was useful but could not be applied as a predictive tool for short-term averages or at other receptors in the valley.

Following the 1981-82 study, the SO_2 monitoring network was scaled down in various stages until it reached a minimum early in 1987. As mentioned previously, eight SO_2 monitoring stations were in operation in 1982 during the SO_2 study. Following the conclusion of that study, the network was scaled down to four sites in 1983. These included Coburn Road (30-111-0066), Lockwood Park (30-111-0065), North Johnson Lane (30-111-0064) and Taft School (30-111-0064). It should be noted that no sites were kept in the Laurel area since the two sites in the 1981-82 study showed compliance with the NAAQS and MAAQS. The Department felt that greater emphasis was needed in the Billings/Lockwood area. In December 1983, the Taft School site was shut down to reduce the operator's workload in Billings. The network of three continued until June 1986 when a leasing problem caused the Department to shut down the North Johnson Lane site. In January 1987, the Department shut down its Lockwood Park site due to further cutbacks of personnel in the Billings office. At that time the network was reduced to a single site, Coburn Road, which has been the backbone of the network.

During 1984 to 1986, the Department explored rule-making options to bring the area into compliance with the SO_2 MAAQS. With no easy administrative solutions in sight, the Montana Legislature passed HB 534 in the 1987 session. This bill exempted the existing Billings/Laurel industries from meeting the MAAQS; they had only to meet the NAAQS (which was being met in Yellowstone County). Acknowledging the State's diminishing role in SO_2 monitoring in Billings, the legislature passed HB 878 which provided state funding for continued monitoring. With this funding the State was able to add one additional site, Scottish Rites (30-111-0073), to its network.

At the same time, the six Billings/Laurel industries combined resources to address SO_2 issues including monitoring. The Billings/Laurel Air Quality Technical Committee (BLAQTC) was formed in the spring of 1987. BLAQTC hired a contractor, purchased equipment and installed three SO_2 monitoring stations. Two of the sites were in Billings, Lockwood Park (30-111-1065) and Coulson Road (30-111-2004), and one was in Laurel, Laurel-BLAQTC (30-111-2004). The Department is a non-paying member of BLAQTC and works with the group on site selection, quality assurance, and ambient monitoring. By the end of 1987 the combined State and BLAQTC network consisted of five sites.

This monitoring network remained the same until October 1989.

Upon agreement with the Department and BLAQTC, the Scottish Rite site was moved to Ponderosa School (30-111-0076) and the Coulson Road site was moved to Brickyard Lane (30-111-2005). The group felt that the old sites had served their purpose and that higher SO_2 concentrations might be found at the new sites. The Department documented the recent SO_2 monitoring sites in forms sent to EPA on January 5, 1990. EPA approved all of these sites in a letter dated May 14, 1990.

On June 30, 1992, the Ponderosa School site was shut down due to low readings. This action was approved by EPA in a letter dated June 22, 1992. The Ponderosa monitoring shelter was moved to the Coburn Road location, approximately 30 feet west of the existing air monitoring trailer. In an attempt to reduce vandalism, the instruments in the original Coburn Road trailer were moved to the new (i.e. old Ponderosa) shelter on October 1, 1992. A letter, along with photographs, documenting the move was sent to EPA on October 29, 1992. The old Coburn Road trailer was surplused.

In 1990, EPA hired a contractor to develop an SO_2 emission inventory for the Billings-Lockwood-Laurel area. The final report was submitted during February, 1991. Also in 1990, the City of Billings hired a contractor to perform a dispersion modeling study for the Billings-Lockwood-Laurel area utilizing recently gathered meteorological data and the updated emission inventory. The preliminary results of the dispersion modeling study indicated that potential violations of the SO_2 NAAQS existed using allowable emission rates as well as at actual emission levels. In some cases, the model predicted high SO_2 concentrations in areas where air monitoring had never been conducted. In July 1990, Billings Generation, Inc. (BGI) applied for a permit to construct a coke-fired, power generation facility adjacent to and utilizing petroleum coke from the Exxon Refinery. Dispersion modeling by BGI, required as part of the permitting process, indicated elevated SO_2 levels in the Lockwood area. The Department reviewed and refined the results of the modeling studies and concluded that additional SO_2 monitoring sites were needed.

At the location of the modeled maximum SO_2 "hot-spot" the Department installed an SO_2 monitor. The site, Sacrifice Cliff (30-111-0080), was approved by EPA effective May 19, 1993, and data collection began at that time. As a result of the permitting process, BGI (now Yellowstone Generation Inc.) operates SO_2 monitors at two other modeled "hot-spots". The first one, Johnson Lane (30-111-2006), is located near Johnson Lane, south of I-90, and east of the existing Lockwood Park site. EPA approved the Johnson Lane site on March 7, 1994 with data collection starting on November 2, 1993. The second site, Pine Hills (30-111-2007), is located east of the I-90/I-94 junction, in the elevated terrain near the Pine Hill School. EPA approved the Pine Hills site on March 7, 1994 with data collection starting on November 2, 1993.

A consortium of Billings industries installed an SO_2 analyzer at the Mt. Olive site with data collection starting on 12/1/95. This group also started a new site at Senior High School with CO, SO_2 and meteorological monitoring. SO_2 data collection at Senior High began 12/26/95.

In November 1988, the Department started collecting peak five-minute SO_2 averages for each hour. The EPA met with the Department and BLAQTC in February 1990 and offered two SO_2 analyzers to conduct peak monitoring in the range from 1 to 5 ppm. In September 1990, the Department and BLAQTC installed one of these monitors at the Coburn Road site and the other at the Lockwood Park site. These monitors collected peak five-minute data for six months until the end of March, 1991. Peak data was also collected at the other three sites with analyzers in the range of 0 to 1 ppm. After completion of the study, an EPA contractor reviewed and analyzed the data; the results were inconclusive. The Department continues to collect peak five-minute SO_2 data but none is collected at the industry sites. If frequent off-scale (i.e.<1.0 ppm) excursions are measured at the State operated sites, the Department may decide to operate the SO_2 analyzers on a higher range. Currently this is not seriously being considered due to the lack of a short-term (i.e. five-minute) SO_2 NAAQS.

The Department feels the current network is adequate and several of the sites could be considered "maximum concentration sites" depending on wind and weather conditions. There are no plans to change the network in the near future except for the possible relocation of the Johnson Lane site further south along Johnson Lane into higher terrain and relocating Brickyard Lane to the Billings Heights area.

2.1.2 AQCR 141 - CENTRAL MONTANA

2.1.2.1 CASCADE COUNTY

The SO_2 issue in the Great Falls area became apparent as the result of dispersion modeling performed in support of a permit application by Montana Refining. Potential exceedances of the SO_2 NAAQS were identified on high ground to the east of the Montana Refining facility. The permit subsequently required SO_2 monitoring at the identified "hot spot". The Wire Mill Road site (30-013-2000) began reporting valid data on November 14, 1994. Montana Refining emitted 1200.5 tons of SO_2 in 1995.

2.1.3 AQCR 142 - SOUTHWESTERN MONTANA

2.1.3.1 LEWIS & CLARK AND JEFFERSON COUNTIES

The sulfur dioxide issue in Lewis & Clark County (and Jefferson County) has been dealt with for a number of years. ASARCO's primary lead smelter is the only major point source for SO_2 in the East Helena area. In 1995, the ASARCO primary lead smelter emitted approximately 13255 tons/year of SO_2. The ASARCO smelter is located next to the city of East Helena in the Helena Valley. The Helena Valley is a fairly wide valley (approximately 16 miles by 16 miles) and lies east of the Continental Divide. The valley is surrounded by mountains and, as with many areas in Montana, experiences inversions in the fall and winter months. East Helena is located at the southern end of the valley. Located east of the Continental Divide, the valley often has down-slope winds which ventilate the valley. Predominant wind directions are from the northwest through southwest. Monitoring by ASARCO in the early 1970's revealed exceedances of the SO_2 standard in the East Helena area. At that time ASARCO operated six monitoring sites in the East Helena area.

In 1975, the Montana SIP was revised to include SO_2 controls that provided for the attainment and maintenance of the NAAQS. The strategy limited the emission rate for the sinter plant and called for a 75% reduction of SO_2 on an annual basis. As a result, ASARCO installed a double contact acid plant with several modified stacks to reduce the SO_2 emissions in 1977.

Continued monitoring by ASARCO showed attainment of the SO_2 NAAQS at all sites except the Kennedy Park site (north of East Helena). Night drainage winds from the south along the Prickly Pear Creek often cause emissions to drift to the north. This was the probable cause of high concentrations at the Kennedy Park monitor. In 1977, the area was designated non-attainment for SO_2. It was determined that emissions from shorter stacks serving the smelter's blast furnace were the cause of the exceedances. In 1978 and again in 1980, field tracer studies were conducted to determine good engineering practice (GEP) stack height for a proposed taller stack. These proposed changes were submitted as part of the SIP. In 1982, a new blast furnace baghouse stack was built. The taller stack allowed emissions to be dispersed at a higher elevation and eliminated high concentrations near ground level.

From 1974-1982, the Department operated three SO_2 sites adjacent to ASARCO's sites. After the acid plant was installed and the new blast furnace baghouse stack was built, ambient concentrations dropped dramatically and the State discontinued their sites, relying on ASARCO to provide SO_2 concentration data. In 1991 ASARCO operated six SO_2 monitoring stations in the East Helena area. They were as follows: Kennedy Park (30-049-0703),

East Station (30-049-0711), Kleffner Road (30-049-0701), Water Tank (30-049-0702), Microwave Tower (30-043-0903), and Ash Grove Siding (30-043-0908).

Data from samplers in the immediate vicinity of the smelter have shown exceedances but no violations of the NAAQS or MAAQS. There were some "violations" of the three-hour NAAQS in 1987 at an SO_2 site about four miles from the smelter near a cement manufacturing facility. This was at the Highway 518 site (30-043-0906). A data review did not determine any cause for the high readings and it was difficult to determine if the readings were valid. No other violations have occurred since this time.

In April 1991, EPA notified the Department that the East Helena SO_2 SIP was inadequate and needed to be revised and submitted to EPA by May 1992. This request was driven by an inadequate GEP stack height analysis and requirements in the Clean Air Act Amendments of 1990. In 1991, the Department received Asarco's SO_2 data from 1986 through 1989 on magnetic media and updated it to AIRS. The data falls short of proper QA procedures such as weekly zero/span checks and quarterly audits. As a result, the Department worked with Asarco to develop a QA plan and SOP documents for their SO_2 monitoring network. This package was submitted to EPA in August 1992 and approved by EPA on February 23, 1993.

In 1992 dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest and southeast of the smelter, in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. The current network consists of thirteen SO_2 sites, as follows: Microwave (30-043-0903), Ash Grove Siding (30-043-0908), Kleffner Road (30-049-0701), Water Tank (30-049-0702), Kennedy Park (30-049-0703), Top of Microwave Hill (30-043-0909), McClellan Creek Road #3 (30-043-0910), McClellan Creek Road #4 (30-043-0911), McClellan Creek Road #5 (30-043-0912), McClellan Creek Road #6 (30-043-0913), McClellan Creek Road #7 (30-043-0914), McClellan Creek Road #8 (30-043-0915), and McClellan Creek Road #9 (30-043-0916).

The current network is adequately distributed to show attainment and maintenance of the NAAQS and MAAQS. Once the SIP is approved, the control measures are implemented, and the ambient data is reviewed, the SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas. The East Helena SO_2 SIP revision for the annual and 24-hour NAAQS was approved by EPA on March 28, 1995. The East Helena SO_2 SIP for the 3-hour NAAQS will be completed in 1996.

2.1.4 AQCR 143 - EASTERN MONTANA

2.1.4.1 ROSEBUD COUNTY

The sulfur dioxide issue in Rosebud County centers around the Montana Power Company's four coal-fired power generating plants in Colstrip. Units #1 and #2 were permitted in 1973 by the State. Unit #1 was commissioned in October 1975 and Unit #2 in August 1976. The SO_2 control for these units are wet scrubbers with a 70% control efficiency. In 1995, all the Colstrip units emitted approximately 12,108 tons/year of SO_2.

In 1978, a PSD permit was issued by the EPA for Colstrip Units #3 and #4. EPA was the issuing agency because, at that time, the State had not been delegated PSD permitting authority. However, the State did issue a normal construction and operating permit. The issue of impact on the Northern Cheyenne PSD Class I area resulted in higher stacks and greater control efficiencies for Units #3 and #4. The control for these units consists of wet scrubbers with lime injection and results in a 90% control efficiency.

The company maintains an ambient network around the facility and supports a tribal air monitoring program on the Northern Cheyenne reservation. Data submitted by the company show very low concentrations with no violations of the NAAQS or MAAQS. MPC operates three SO_2 sites. These are at MPC #1 (30-087-0701), MPC #2 (30-087-0702), and MPC #3 (30-087-0700). MPC #4 (30-087-0704) was shut down on June 30, 1992 and the termination was approved in an EPA-letter dated April 3, 1992.

The topography of the area is semi-rugged to rolling terrain. The area sometimes experiences temperature inversions but generally receives good airflow and is usually well ventilated.

The Colstrip area is considered attainment for SO_2. The Department is currently processing Montana Power's SO_2 data and updating it to AIRS. The Department is also obtaining precision and accuracy data. It is still imperative to keep collecting ambient SO_2 data with the current network. The current network is adequately distributed to track compliance with the NAAQS, MAAQS, and PSD increments.

2.2 NITROGEN DIOXIDE AREAS

As mentioned in Section 1.2.6, nitrogen dioxide is not a pollutant of concern in Montana. There are, however, two areas in the State where NO_2 is being (or was recently) monitored by companies as a permit condition. These areas are in Missoula and Colstrip.

2.2.1 AQCR 143 - EASTERN MONTANA

2.2.1.1 ROSEBUD COUNTY

The nitrogen dioxide issue in Rosebud County centers around Montana Power Company's four coal-fired power generating plants in Colstrip. Units #1 and #2 were permitted in 1973 by the State. Unit #1 was commissioned in October 1975 and Unit #2 in August 1976. In 1978, a permit was issued by the EPA for Colstrip Units #3 and #4. EPA was the issuing agency because, at this time, the State had not been delegated PSD permitting authority. However, the State did issue a normal construction and operating permit. In 1995, the Colstrip units emitted approximately 26,472 tons/year of NO_2.

The company maintains an ambient network for NO_2 around the facility and supports a tribal air monitoring program on the Northern Cheyenne reservation. Data submitted by the company are very low and show no violations of the NAAQS or MAAQS. MPC operates three NO_2 sites. These are at MPC #1 (30-087-0701), MPC #2 (30-087-0702), and MPC #3 (30-087-0700). MPC #4 (30-087-0704) was shut down on June 30, 1992 and the termination was approved in an EPA-letter dated April 3, 1992.

The topography of the area is semi-rugged to rolling terrain. The area sometimes experiences temperature inversions but generally receives good airflow and is usually well ventilated.

The Colstrip area is considered attainment for NO_2. The Department has updated all of Montana Power's NO_2 data through the end of 1989 and will continue to update it to the present. The Department is also obtaining precision and accuracy data. It is still imperative to keep collecting ambient NO_2 data with the current network. The current network is adequately distributed to track compliance with the NAAQS and MAAQS.

2.2.2 AQCR 144 - NORTHWESTERN MONTANA

2.2.2.1 MISSOULA COUNTY

Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers. The Missoula urban area is home to nearly 62,000 persons. The Missoula Valley is similar to other western Montana valleys in that it is susceptible to temperature inversions in the fall and winter months. Wind speeds are generally calm (less than 10 mph) throughout the year.

The nitrogen dioxide issue in Missoula County centers around the Stone Container kraft pulp mill near Frenchtown. In May 1987, the company received a PSD permit from the State to burn petroleum

coke in their four lime kilns. As a permit condition, Stone Container was required to operate one NO_2 monitoring site near their facility. To date, only one lime kiln has been converted to burn coke. The data collected and submitted to the State by Stone showed very low concentrations with no violations of the NAAQS or MAAQS. In 1995, the Stone Container facility emitted approximately 2059 tons/year of NO_2.

The NO_2 monitoring was discontinued, at Stone's request, on June 1, 1992 due to low ambient concentrations. The monitoring will resume when another lime kiln is converted to burn coke. The ambient data showed that the area remains in compliance with the NAAQS and MAAQS.

2.3 CARBON MONOXIDE AREAS

Carbon monoxide is a pollutant of concern in the larger communities in Montana. Currently, Missoula is categorized as non-attainment for carbon monoxide. Billings and Great Falls are categorized as unclassified for carbon monoxide attainment. Kalispell violated the 8-hr CO NAAQS in January 1996 and has not been classified as non-attainment as of September 1996. Automobile exhaust is the principal source of CO emissions in these communities. Other sources include industrial emissions as well as agricultural and forestry burning. In some western Montana valleys, residential wood combustion is a major contributing source.

As part of the network review process, the Department looked at other communities where CO may be a problem. These are discussed in the following sections.

2.3.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.3.1.1 YELLOWSTONE COUNTY

In Yellowstone County, the city of Billings is situated along the Yellowstone River Valley. The Yellowstone River Valley runs from southwest to northeast and is a predominant topographical influence on the airflow in the area. Located both to the north and south of the river are cliffs or rimrocks which tend to cause channeling. The distance between rims is about one mile wide where the downtown area is located.

In 1978, the Billings downtown area was designated non-attainment for CO due to high readings at the 27th & Montana monitoring site (30-111-0053). Automobile exhaust was thought to be the principal source of CO. As part of the SIP development process, a model predicted that an area along Main Street (formerly

Exposition Drive) had the highest potential to exceed the standards. The plan for the attainment of the 8-hour standard predicted that modification to the Main Street-First Avenue North intersection would achieve the standard.

Data collected at the Metra Parking Lot site (30-111-0061) during the two years following the modifications to Main Street (1985-86) indicated compliance with the standard. Upon EPA's review of the redesignation request, the Department was informed that (1) the data collected did not meet the completeness requirement, (2) the site should be relocated closer to the nearest traffic lane at a maximum concentration microscale site, and (3) a redesignation request would have to show attainment/maintenance at all locations.

Attempts to locate a new EPA-approved site followed a somewhat convoluted path. EPA wanted a site just north of the 4th Avenue entrance to the Metra Parking Lot. Permission could not be obtained mostly due to traffic and safety concerns. A site was temporarily located near the Main Street-6th Avenue North intersection (30-111-0074), but soon after it started operation, water pipes and valves were unearthed below the monitoring shelter. It was decided that this site was impractical considering future access to the same water valves.

After a lengthy approval process, EPA granted permission to locate a microscale CO monitor just south of the 4th Avenue North entrance to the Metra Parking Lot (30-111-0075). Carbon monoxide data at this site has been collected since October 1988 and has not recorded any exceedances of the MAAQS or NAAQS.

In order to show attainment and maintenance of the standard at all locations, Yellowstone County Air Pollution Control conducted CO grab sampling studies during the winters of 1988-89 and 1989-90, and a CO saturation study in December of 1991. The last study identified two maximum CO concentration areas; the rapidly growing west side along 24th Street West and the downtown business district along North 27th Street. As a result of the EPA-approved saturation study the Department and the Yellowstone County Air Pollution Control program installed two new CO monitoring sites in Billings during the fall of 1992 and terminated the Metra CO monitoring site (30-111-0075).

The downtown site, Diamond Parking (30-111-0078), was located on North 27th Street, between 3rd & 4th Avenues. It began operation in November of 1992 and was approved by EPA in a letter dated April 2, 1993. The Diamond Parking Lot site was discontinued on April 8, 1994, and a new site (Norwest, 30-111-0081) was established, across 27th Street and one block south, in the same area. The Norwest site was approved by EPA and started data collection on April 25, 1994. The west side site, Mount Olive (30-

111-0079), is located on 24th Street West, just north of Central Avenue. It also began operation in November of 1992 and it was approved by EPA in a letter dated February 5, 1993.

In 1995, a consortium of Billings industries started a new site at Senior High School (30-111-2008) with CO, SO_2 and meteorological monitoring. CO data collection at Senior High began 12/19/95.

Due to provisions in the Clean Air Act Amendments of 1990, Billings was reclassified as "unclassified" under the CAAA. This label was given because the design value for this community was less than 9 ppm. The State is required to submit community specific maintenance plans to EPA when the redesignation request is made. At that time the Department will review the data to determine which site records the maximum CO concentrations and only operate that one site for maintenance purposes.

2.3.2 AQCR 141 - CENTRAL MONTANA

2.3.2.1 CASCADE COUNTY

In Great Falls, a corridor along 10th Avenue South was designated non-attainment for CO in September, 1980 due to high readings at the Midas Muffler site (30-013-0015) located at 10th Avenue South and 9th Street. This particular site ran from 1977 until 1979 when a leasing problem forced the State to relocate the monitor about twelve blocks east at the Great Falls Federal site (30-013-0021). This site operated until 1983 when the monitoring trailer was again moved to the Pardis Clinic site (30-013-1023). The Pardis site was located one block west and across the street from the original Midas Muffler site. The Department anticipated higher concentrations at this site because it was located at a lower elevation and the traffic volume on this section of 10th Avenue South was higher.

Sampling at the Pardis Clinic site began in November 1983 and was established as a middle scale site. In May 1987, and again in August 1987, EPA informed the State that "in order to determine whether an area is attaining the NAAQS, a control agency must locate at least one monitoring station in the area of maximum concentration." EPA interprets such a location for CO to be a microscale site. On November 4, 1987, the Department moved the probe to be within microscale siting. The site remained microscale until November 16, 1988, when the site was moved back to middle scale at the landowner's request.

Carbon monoxide data collected at the Pardis Clinic site showed a few exceedances of the 8-hour standard from 1986-88. A review of the exceedances showed that most occurred in the evening

hours with very light to calm winds. In 1983, a staff review of data showed that area-wide sources could be contributing to the elevated readings.

Since microscale siting at the Pardis Clinic could not be continued, the Department moved the CO trailer about a block west on 10th Avenue South at the Skyway Conoco site (30-013-1025) on November 9, 1989. This site modification request was approved by EPA in a letter dated November 2, 1989. This site is currently in operation and is microscale.

The Department and Cascade County conducted a saturation study in January 1992 in an attempt to determine a maximum concentration CO site in Great Falls. The results from this study were generally inconclusive. There was one location a few blocks east of the existing Skyway Conoco site that had slightly higher CO concentrations. However, most of the concentrations recorded during the study were low due to windy conditions that resulted in excellent atmospheric ventilation. The dispersion conditions during the study are typical of those present in Great Falls most of the year. Attempts by Cascade County personnel to obtain permission to relocate the CO site a few blocks to the east on 10th Avenue South failed. The Department is not concerned about this failure because the differences in the CO concentrations measured during the saturation study were statistically insignificant. As a result the Department is convinced that the Skyway Conoco site is located in the area of maximum CO concentrations and there are no plans to relocate the site or establish a second one.

Automobile exhaust was originally thought to be the principal source of CO in Great Falls. As part of the SIP development process, a model predicted that several intersections along 10th Avenue South could have the potential for violating the NAAQS for CO. In the plan submitted to EPA, CO standards could probably be achieved by 1985 or 1986 with EPA-mandated emission standards for automobiles, increased traffic speed along 10th Ave. South, improved traffic light synchronization, a widening of a bridge, a mass transit system and reductions at the Montana Refining Company.

Due to the continued noncompliance at the monitoring sites on 10th Avenue South, EPA told the State that the SIP is inadequate and will need to be redone. As part of this rewrite, CO emission inventory data was submitted to EPA in December 1989. The Department never received comments from EPA on the adequacy of this emission inventory. An emission inventory using 1990 as a base year was submitted to EPA in the summer of 1992; EPA's comments on this inventory were received in December 1992. The Department submitted the finalized inventory to EPA in 1996, and no comments have been received at this time.

Due to provisions in the Clean Air Act Amendments of 1990,

Great Falls was categorized as "unclassified" under the CAAA. This label was given because the design value for this community was less than 9 ppm. The State is required to submit community specific maintenance plans to EPA at the time of the redesignation request. EPA mandated tailpipe controls, along with 0% population growth since 1980 and only 1% growth since 1992, should assist with redesignation.

2.3.3 AQCR 142 - SOUTHWESTERN MONTANA

2.3.3.1 SILVER BOW COUNTY

Butte, located in Silver Bow County, was suggested by staff as a possible location for a carbon monoxide monitoring site. The area is currently unclassified/attainment for CO. In 1987-88, a SPM site for CO was operated on Continental Drive (30-093-0022) near the main entrance to the Berkeley Pit and within a few blocks of the Department's PM_{10} site at Greeley School (30-093-0005). The highest 8-hour reading was 9.1 ppm. In 1978-79, the Department operated a site at Hebgen Park (30-093-0018). The highest 8-hour concentration was 7.8 ppm. Neither site would be considered a maximum concentration site for CO.

Butte has an urban population of approximately 32,000 persons. The elevation averages 5300 feet with the Continental Divide surrounding the city on three sides. Wind speeds in Butte are usually calm and the area is susceptible to severe temperature inversions in the fall and winter. The old part of Butte is built on a hillside next to the Berkeley Pit. The new part of town is built on the "flats" to the south and is where much of the strip development is located. Harrison Avenue is a street that links uptown with the flats. Interstate 90 is a major east/west highway that slices through the lower part of town with off-ramps to Harrison Avenue.

The Department conducted a CO saturation study in Butte for about two weeks in mid-December 1995. The study showed the highest CO concentrations on Harrison Avenue near the Interstate. The Department is proposing to establish a CO monitoring site at the probable high concentration location in the spring of 1997. Exact siting would involve an on-site inspection of the area, review of traffic counts and a review of the CO saturation study. Appropriate network modification forms will be filled out and submitted to the EPA for approval. The establishment of this site depends upon resources and equipment availability.

2.3.4 AQCR 144 - NORTHWESTERN MONTANA

2.3.4.1 FLATHEAD COUNTY

The Department conducted a CO saturation study in Kalispell from December 16, 1994, to January 2, 1995. In part because of the saturation study results a CO monitoring site was established near the intersection of Idaho and Main in Kalispell with data collection beginning on 10/31/95. Two exceedances (a violation) of the 8-hr CO NAAQS were recorded at the Idaho and Main site in January 1996.

Kalispell has an urban population of approximately 31,600 persons although the majority of the 67,300 county residents live within a 15 mile radius of the city. Kalispell serves as a business, service and shopping center for the greater Flathead Valley. The Flathead Valley is located west of the continental divide and is a fairly wide (14 miles across) valley. The climate is mild with calm or low wind speeds. Like many communities in the western part of the State, the area is susceptible to temperature inversions in the fall and winter. Two major highways serve Kalispell. These are Highway 2 which is an east/west route and Highway 93 which is a north/south route. These two highways meet at a stoplight in Kalispell at Main Street (Highway 93) and Idaho Avenue (Highway 2). The queuing time for this intersection can be quite lengthy, allowing motor vehicles to idle for extended periods, emitting large quantities of CO.

Residential wood combustion in Kalispell is common as much of the community has fairly easy access to wood from local forests. The CO emitted by traffic at the Main Street-Idaho Avenue intersection combined with the area-wide contribution from wood stoves has the potential to create elevated concentrations of CO.

A second CO site at the Laser Alternative School will be established in the fall of 1996. This site should help define the extent of the CO problem in Kalispell.

2.3.4.2 MISSOULA COUNTY

The city of Missoula was designated non-attainment for CO based on high concentrations recorded at the intersection of Brooks (U.S. 93), Russell and South. This intersection and the monitoring site are known as Malfunction Junction (30-063-0005). Exceedances of the 8-hour CO standard have also been observed at other air monitoring sites in Missoula: Lions Park (30-063-0019), in the downtown area on Higgins Avenue (30-063-0023), and Boyd Park (30-063-0024).

Missoula is situated at the confluence of the Bitterroot and

Clark Fork Rivers in western Montana. The city has a population of approximately 45,000 persons but the urban area contains approximately 62,000. The Missoula Valley is fairly narrow (approximately 6 miles across) and similar to other western Montana valleys in that it is very susceptible to temperature inversions in the fall and winter months. Wind speeds are calm or low throughout the year and allow concentrations to build up.

A SIP was submitted to EPA which detailed a plan to bring the area into compliance. The plan called for the reconstruction of the Malfunction Junction intersection including limited turn lanes, timing sequences for the traffic lights and increased vehicle speeds. Additional reconstruction was performed on a portion of Highway 93 between Mount Avenue and Reserve Street. The reconstruction was completed in late 1985.

The Malfunction Junction site was temporarily shut down in July 1983 and reactivated in January 1986 after the completion of the reconstruction. The CO data collected from 1986 to 1992 showed some exceedances of the 8-hour CO standard. There have been no measured exceedances since October 1992 when an oxygenated fuels program was implemented.

A second CO site in Missoula has operated at Boyd Park in the southern part of the city since 1981. It is suspected that most emissions at this site are from residential wood combustion although CO from traffic may also be a contributing factor. In May 1991, the Department made a request to EPA to permanently shut down the site. The site had not measured an 8-hour CO exceedance since 1987 and the site was in the same general area as the maximum concentration site of Malfunction Junction.

EPA responded to the Department's request in a letter dated August 8, 1991. They disapproved of the proposal to permanently shut down the Boyd Park CO site. They needed additional justification (documentation) that Malfunction Junction is the maximum CO location and that there is no need for a second CO monitoring site in Missoula (i.e., that Malfunction Junction can adequately address all contributing sources to the CO problem in Missoula, whether they are mobile, point or area sources). The Department provided EPA with additional justification in a letter dated September 16, 1991. EPA then agreed to the Boyd Park shut down request in a letter dated October 4, 1991. The Boyd Park CO analyzer was never re-started since it had been shut down for the summer season on April 1, 1991.

During December 1992, the Department and Missoula County conducted a CO saturation study in Missoula. The final report was submitted to EPA on April 20, 1993. EPA's response, in a letter dated May 24, 1993, states, "We agree, the study confirms the Malfunction Junction intersection has the highest carbon monoxide

levels in the Missoula area and the existing monitoring station know as "Malfunction Junction" is the maximum concentration monitoring station."

EPA and the Department were concerned that area-wide sources such as residential wood combustion combined with traffic emissions contribute to elevated CO levels at other areas in Missoula. In July 1988, EPA notified the Department that the Missoula CO SIP was substantially inadequate. The Department and Missoula County prepared a new emission inventory and submitted it to EPA in December 1989. The Department never received comments from EPA on the adequacy of this emission inventory. A new emission inventory using 1990 as a base year was submitted to EPA on November 13, 1992; EPA's comments on this inventory were received in December 1992. The Department expects to submit the finalized inventory to EPA by July 19, 1995. Additional controls for CO in Missoula were gained by implementing an oxygenated fuels program on October 1, 1992.

Due to provisions in the Clean Air Act Amendments of 1990, Missoula was categorized as a "moderate" non-attainment area. This label was given because the design value was greater than 9.5 ppm for an eight hour period. The State submitted a SIP revision, as a result of the oxygenated fuels program, to EPA on November 6, 1992. The Department has no plans for a second CO monitoring site in Missoula and intends to operate only the Malfunction Junction site for maintenance purposes.

2.4 OZONE AREAS

Ozone (O_3) is not a pollutant of major concern in Montana. All areas of the State are considered attainment for ozone. Unlike most other pollutants, O_3 is not emitted directly into the atmosphere but results from a complex photochemical reaction between volatile organic compounds (VOC), oxides of nitrogen (NOx), and solar radiation. Both VOC and NOx are emitted directly into the atmosphere from sources within the State. Since solar radiation is a major factor in O_3 production, O_3 concentrations peak in the summer months.

2.4.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.4.1.1 YELLOWSTONE COUNTY

The Department conducted O_3 monitoring in Billings in 1988 and 1989 at the Scottish Rites monitoring site (30-111-0073) in the city center. Billings is in an area where sources emit fairly large quantities of VOC and NOx. Billings is also an area where hot summer days may promote photochemical reactions. EPA defines

the O_3 monitoring season for Montana as June 1 to September 30. Ozone data collected at the Scottish Rites site showed higher concentrations in the summer months but all were within the NAAQS.

The Scottish Rites site (which also monitored for SO_2) was discontinued in September 1989 and moved to another location. Since the O_3 readings were low and resources were needed for other purposes, the Department discontinued O_3 monitoring.

The staff has proposed O_3 monitoring just east of Billings from June through September, starting in 1998. The establishment of an O_3 monitoring site near Billings is dependant on funding and equipment availability.

2.5 LEAD AREAS

2.5.1 AQCR 142 - SOUTHWESTERN MONTANA

2.5.1.1 LEWIS & CLARK COUNTY

Lead is a pollutant of concern in East Helena where the predominant source is the ASARCO primary lead smelter. After promulgation of ambient air quality standards for lead, the East Helena area violated the lead standard based on ambient monitoring. The Department then conducted extensive source apportionment studies in the early 1980's. These studies included the chemical mass balance technique and the results indicated that re-entrained road dust and soil, fugitive ore concentrates, zinc oxide material and blast furnace upsets were the primary lead sources.

A SIP was developed and approved by EPA in 1984 which contained control strategies designed to bring the area into compliance. As of December 31, 1986, all the control strategies in the plan were implemented but ambient air monitoring data for 1987 and 1988 indicated that although lead levels decreased, they still remained above the standard. As a result, EPA notified Montana on October 1, 1988, that the East Helena lead SIP was inadequate. During the last half of 1990 and the first half of 1991, the State and the involved companies conducted ambient monitoring, emission inventory estimations, source apportionment studies, meteorological data collection, and dispersion modeling in support of a new SIP. On August 2, 1993, EPA made a finding that Montana had failed to submit a lead SIP by July 6, 1993, for the East Helena lead non-attainment area. Therefore, sanctions were to be imposed 18 months after the finding (February 2, 1995), unless the State submitted a revised SIP and EPA determined that the revised SIP was complete within that time frame. On February 2, 1995, EPA imposed 2:1 emission offset sanctions in the East Helena lead non-attainment area. The Department submitted a lead SIP to EPA in August 1995 and a revision to the lead SIP in July 1996.

Recent TSP/Pb network modifications include the following: The Microwave (30-043-0903) TSP/Pb background site was officially shut down on June 30, 1991. The Hadfield site (30-049-0719) was shut down on April 1, 1993, and the equipment moved to the current Prickly Pear site (30-049-0727). Prickly Pear is a site located directly north of the ASARCO smelter, across U.S. Highway 12, west of Prickly Pear Creek on Pacific Street. This site is near the modeled maximum Pb concentration site (modeling conducted with the assumption that all the SIP control strategies have been implemented). Prickly Pear started data collection as a collocated site in November 1993.

The current monitoring network consists of the following four sites: Firehall (30-049-0714), Dartman Field (30-049-0724), Old Railroad (30-049-0726), and Prickly Pear Creek (30-049-0727). Currently, all sites run at a 1-in-6 schedule except Firehall, which runs on a 1-in-2 schedule. On July 1, 1995, Cadmium, Arsenic, Zinc, Copper, Nickel, and Chromium analysis began on the filters collected at Firehall.

2.6 PARTICULATE (PM_{10} AND TSP) AREAS

Particulate matter is the largest air pollution problem in the State and has historically received the highest priority from the Department. In some portions of the State, there is a total suspended particulate (TSP) record dating back to 1970. From this long historical data base the Department has learned many of the significant factors that contribute to particulate pollution in Montana. It is clear that the most important factors are a combination of meteorology and topography. Mountain valleys and frequent temperature inversions often lead to particulate being trapped close to their emission source for days at a time. The ensuing particulate matter build-up has caused many communities with relatively small particulate emission rates to exceed federal particulate standards.

In the 1970's and 1980's, a statewide TSP network was run by the Department. Data from this network proved that very few areas in the eastern portion of the State had concentrations close to primary or secondary TSP standards. Consequently, the majority of the Department's present particulate monitoring is conducted in the State's mountainous western region.

TSP particulate monitoring evolved into sampling for particulate matter less than 10 microns in diameter (PM_{10}) because of promulgation of the 1987 ambient air quality standard. After promulgation of the new PM_{10} standards the EPA used PM_{10} to TSP ratios and statistics to determine if areas had a probability of exceeding the PM_{10} standards. Areas were then designated as Group I, II, or III based on the EPA calculations where there existed greater than 95%, 20-95%, or less than 20% chance, respectively, of exceeding the new PM_{10} standard.

PM_{10} monitoring began in the summer of 1985 at many of the current sites. The inlets initially used had a "bounce off" problem where large particles were allowed through the inlet biasing some PM_{10} concentrations higher. To remedy the problem, all inlets in the network were retrofit with a factory-supplied, greased impaction shim during the summer of 1987.

Particulate emission sources in Montana are diverse. Point sources typically can be placed into one of the following categories: coal and ore mining, non-metallic mineral processing (i.e., talc, lime, and phosphate mines), wood products industries, slash burning, and wood and coal fired power generation. Although some of these sources are significant (Appendix A), they are typically located in relatively remote areas where the threat to public health is minimal. Of greater concern in the State are area sources. Examples of area sources include re-entrained road dust, residential wood combustion, and tailpipe emissions. These sources in combination with localized point sources are the cause for most

of the PM_{10} problems in Montana.

The following subsections present brief descriptions of the particulate monitoring sites which have been operated or administered by the Department. Included in the descriptions are summaries of the sources that have impacted the areas, relevant topographic and meteorological information, discussions of the data collected, and future recommendations for the sites.

2.6.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.6.1.1 FERGUS COUNTY

Fergus County is located in central Montana and contains several outlying frontal ranges of the Rocky Mountains including the Snowy Mountains, Judith Mountains, and Moccasin Mountains. The major city in Fergus County is Lewistown (population approx. 6,000). The topography around Lewistown is similar to a mountain valley with frequent temperature inversions which often lead to particulates being trapped close to their emission source for days at a time. The major sources of particulate include re-entrained road dust and residential wood combustion.

TSP monitoring was conducted in Lewistown from January 1980 through December 1983 and no exceedances of the standard were found. Since Lewistown is topographically similar to Western Montana communities with PM_{10} problems and no particulate monitoring has been performed for over ten years, the staff is proposing PM_{10} monitoring in Lewistown beginning in 1997.

2.6.1.2 YELLOWSTONE COUNTY

Yellowstone County is located in south central Montana and is bisected by the Yellowstone River. The major cities in the County are Billings (population approximately 82,000) and Laurel (population approximately 5,700) which are located along the Yellowstone River Valley floor. On the north and south edges of the valley, the rimrocks rise abruptly above the valley floor. The valley is approximately 12 miles wide in Laurel, but on the eastern edge of Billings, the rimrocks form a constriction that is only about one mile wide. The prevailing winds are from the southwest and are channeled down the valley. The winds are usually responsible for good dispersion, but occasional temperature inversions do occur.

Particulate monitoring has been conducted in Yellowstone County since 1971. Initial sampling used the standard hi-vol samplers for TSP and although there have been several TSP sites in Yellowstone County, only those in the central part of Billings

showed elevated concentrations.

After promulgation of the new PM_{10} standards Billings and Laurel were designated as Group III areas.

PM_{10} monitoring in Billings started in December 1986 and has continued until present at various locations throughout the city. There has never been a recorded PM_{10} exceedance at any Billings site.

Sampling was conducted at the Diamond Parking site (30-111-0078) from November 1992 until April 1994 when the site was shut down due to site lease problems. The site was moved two blocks south and is currently operating at the Norwest site (30-111-0081). On the west end of Billings, Yellowstone County Air Pollution Control (YCAPC) developed the Mount Olive site (30-111-0079) which started collecting data in July 1994. Sampling for PM_{10} at Lockwood Park (30-111-1065) started in January 1996.

2.6.2 AQCR 141 - NORTH CENTRAL MONTANA

2.6.2.1 CASCADE COUNTY

Cascade County is located in central Montana and at the southern end of AQCR 141. Great Falls is Montana's second largest city with a population of 55,000 and is located at the confluence of the Missouri and Sun Rivers. Topography plays an important part in the climate of Great Falls. The municipal airport and National Weather Service office are located on a plateau about 200 feet higher than Great Falls, which contributes to marked temperature differences. The Continental Divide to the west, and the Big Belt and Little Belt Ranges to the south are primary factors in producing the frequent wintertime chinook winds in this part of Montana. The prevalence of chinook winds creates a relatively high average wind speed (13 mph) which promotes good ventilation in the community most of the time.

Particulate monitoring has been conducted in Cascade County since 1971. Initial sampling used standard hi-vol TSP samplers. There have been several TSP sites in Cascade County but only those in the central part of Great Falls and Black Eagle had elevated concentrations.

After promulgation of the new PM_{10} standards Great Falls was designated as a Group III area.

In 1985, PM_{10} monitoring started at the Downtown site (30-013-0017) in Great Falls and the site continued until 1988. The Department reviewed the TSP and PM_{10} data and determined that the Fire Station (30-013-0009) site was the maximum concentration site

for Great Falls. The Department moved the PM_{10} sampler from the Downtown site to the Fire Station in July 1988. The samplers were run collocated on a 1-in-6 schedule until the Department assumed responsibility for the samplers on October 1, 1991. The sampling frequency was then increased to 1-in-3 (without collocation). Since PM_{10} concentrations were consistently low, the sampling frequency was changed to 1-in-6 in July 1996.

2.6.3 AQCR 142 - SOUTHWESTERN MONTANA

2.6.3.1 BEAVERHEAD COUNTY

The principal PM_{10} air quality concern in Beaverhead County centers around industrial activity six miles south of Dillon around the Pfizer talc plant. Dillon is located near the center of the Beaverhead Valley. The valley floor is about 5400 feet in elevation with relatively low (6700 feet) rolling mountains located ten miles to the west. Although higher mountain ranges such as the Pioneer, Snow Crest and Ruby are nearby, the Dillon area is open and does experience good ventilation.

In September 1984, a monitoring site for TSP was established at the Beaverhead County Courthouse (30-001-0001). This site operated for two years until June 1986. The monitoring data showed relatively low readings and continued monitoring was not warranted.

2.6.3.2 BROADWATER COUNTY

Broadwater County is located in west central Montana. The east boundary of the County is on the crest of the Big Belt Mountains. Broadwater County is sparsely populated (approximately 3,700) with most of the county dominated by dry land farming. The Missouri River dissects Broadwater County. Canyon Ferry Reservoir on the Missouri River is the dominant feature in the county. The PM_{10} area of most concern in Broadwater County centers around the city of Townsend (population approximately 1,700).

The Department is not considering PM_{10} monitoring in Townsend in 1996, but will review this decision in 1997.

2.6.3.3 GALLATIN COUNTY

The PM_{10} area of most concern in Gallatin County centers around the cities of Bozeman and Belgrade. Bozeman (population 23,000) lies at the eastern edge of the Gallatin Valley and is home to Montana State University. Bozeman does not have any major air pollution sources, but does have problems with traditional area-wide sources such as emissions from paved and unpaved roads and

residential wood combustion. Belgrade, with a population of 3,500 lies nine miles west of Bozeman. Belgrade has one major air pollution point source, the Louisiana Pacific sawmill, whose emissions include a wood-fired boiler and dust from the log deck. Belgrade's main particulate emission sources include paved and unpaved roads, residential wood combustion and the sawmill.

The dimensions of the Gallatin Valley are approximately 12 miles by 20 miles. This large area typically allows pollutants to disperse with moderate to fast wind speeds. However, during fall and winter, infrequent calm inversion conditions do allow elevated PM_{10} concentrations to accumulate around the urban areas. Also, winter road sanding contributes to elevated PM_{10} concentrations from re-entrained road dust in the spring.

The Department has been monitoring for particulate matter in Bozeman since 1978. The primary site has been at the East Main City Building (30-031-0002). Other locations were also monitored for TSP, however, the East Main site proved to be the worst-case site in Bozeman at that time and no further investigation has been made since 1987 in regards to either TSP or PM_{10}.

In 1985, the Department installed a PM_{10} monitor at the East Main site and in 1987, when the PM_{10} standard was promulgated, the Department discontinued all Bozeman area TSP monitoring. Also, in 1987, the EPA designated Bozeman as a Group III area. The Department installed a second PM_{10} sampler at the East Main site on January 11, 1991, and increased the sampling frequency from 1-in-6 days to 1-in-2 during the first and fourth calendar quarters. Recently the Bozeman area's population has exploded, creating traffic congestion and other factors that contribute to increased PM_{10} concentrations. Thus far Bozeman has not recorded any exceedances of the PM_{10} standard, either 24-hour or annual, however, further investigation is required to determine if the current site is still a maximum concentration site. The Department may perform a PM_{10} saturation study in the near future, but will wait until traffic rerouting construction is completed prior to proceeding with the study.

In Belgrade, the Department received numerous complaints and a public petition for air quality monitoring in the city. Although the community is small, it has experienced some urban sprawl from nearby Bozeman and has a major sawmill whose emissions include a wood-fired boiler and dust from the log deck. However, the main concern voiced by the citizens centered on dust from paved and unpaved roads. The Department installed two PM_{10} samplers in a central location in an open field behind a grain elevator and sampling began in October 1991. The site, ConAgra (30-031-0008), operates on a 1-in-2 schedule during the 1st and 4th calendar quarters and 1-in-6 during the 2nd and 3rd quarters. Since sampling began readings have been low, with an occasional high

reading; the highest was 137 ug/m^3 on November 11, 1993.

In the southern end of Gallatin County, West Yellowstone and Big Sky are becoming PM_{10} concerns. Both of these towns rely exclusively on seasonal tourist and recreational activities. West Yellowstone is a main entrance to Yellowstone National Park and experiences high traffic counts nearly year round. Particulate emissions come from dirty streets, residential wood combustion (RWC), and motor vehicle tailpipes, especially in the winter with high snowmobile traffic levels. Big Sky is a rapidly growing year-round resort area that is experiencing major environmental problems due to growth. Big Sky is located on the west side of the very narrow Gallatin River Canyon and the resort area is located further west in the Madison Mountain Range. This area's main PM_{10} emission source is suspected to be wood smoke from RWC and summer forest fires/controlled burns.

In October 1994, a PM_{10} site was installed just east of West Yellowstone at the West Entrance Station of Yellowstone National Park. This site was micro-scale for monitoring PM_{10} concentrations mainly from the snowmobile traffic past the West Entrance Station. The sampler was located immediately east of the kiosk (ticket booth) where workers complained of numerous headaches and nausea during the winter snowmobile season. The Wedding PM_{10} sampler used was borrowed by the National Park Service (NPS) from the Bitterroot National Forest in Missoula. The sampler was set up and maintained through a cooperative effort with the NPS and this Department. Data from this site was entered into the AIRS database. The site was discontinued on March 24, 1995, after the park was closed to snowmobile traffic. The NPS also operated two other sites which combined had two MFC Sierra-Anderson PM_{10} samplers, a CO analyzer and a TEOM PM_{10} sampler. The PM_{10} values from these sites were consistently low.

The Department installed a PM_{10} sampler in a vacant lot near the intersection of Firehole Avenue and Dun Raven Street. The site, Firehole (30-031-0012), became operational on 11/27/95. The site operates on a 1-in-2 schedule during the 1st and 4th quarters and 1-in-6 during the 2nd and 3rd quarters.

2.6.3.4 JEFFERSON COUNTY

Particulate concerns in Jefferson County center around area sources in the northern part of the county. This part of the county serves as a bedroom community for persons living near and commuting to Helena. The northern part of Jefferson County includes the unincorporated communities of Montana City and Clancy as well as several adjacent subdivisions. These communities are located along the Prickly Pear Creek drainage with the Continental Divide range to the west and the Elkhorn Mountains to the east.

Drainage winds tend to funnel the airflow on a north-south axis although the area does experiences calm winds and temperature inversions.

The Montana City School is a proposed location for a PM_{10} site located in the northern Jefferson County near Helena and East Helena. The Ashgrove cement plant is located a short distance northeast of this site and the ASARCO lead smelter to the north. This is a fast growing residential area with emissions from residential wood combustion and re-entrained road dust that may directly impact the Helena area (southern end of Lewis & Clark County) during winter inversions. These area sources have the potential to cause elevated particulate concentrations.

2.6.3.5 LEWIS & CLARK COUNTY

Most particulate problems in Lewis & Clark County center around the city of Helena (population 25,000) and the town of East Helena (population 1,600). These two communities are situated near the southern end of the Helena Valley. The valley is large (approximately 16 miles by 16 miles), lies east of the Continental Divide, and is surrounded by mountains on all sides. Wintertime dispersion conditions are generally favorable due to the fact that the city often gets chinook winds. These winds usually keep inversions from setting in for long periods of time. However, nighttime inversions and inversions lasting for a few days are common. Predominant wind direction is from the northwest through southwest.

Particulate monitoring has been conducted in Lewis & Clark County since 1970. Initial sampling was performed using standard hi-vol samplers for TSP. The mainstay of the particulate monitoring network in Helena has been at the Cogswell Building (30-049-0001) near the state capitol building. There have been several other sites in Helena, some of which were associated with Lewis & Clark County's wood stove curtailment program. PM_{10} sampling began in Helena in 1985 when the Cogswell TSP sampler was converted to PM_{10}. Starting in 1991, the Department added Lewis & Clark County Health Department's Helena Lincoln School (30-049-0018) PM_{10} site to its SLAMS network. Concentrations at this site have been consistently low.

Visibility data was collected using a nephelometer at the Lincoln School site (30-049-0018) from December 1988 to March 1993. The county used the visibility data, correlated to PM_{10} levels, to call alerts for their mandatory winter-time wood stove curtailment program. The nephelometer was replaced with a Tapered Element Oscillating Microbalance (TEOM) in October 1993. The TEOM outputs near real-time PM_{10} data and is expected to be more reliable and user friendly. Year-round data from the TEOM has been stored in

AIRS since start-up and will continue indefinitely.

A considerable amount of particulate sampling has also been conducted in the East Helena area. Most of this particulate sampling has been conducted in connection with lead analyses around ASARCO's primary lead smelter.

Because of the newly implemented PM_{10} standards, two SA1200 PM_{10} samplers were installed next to the existing TSP samplers at the East Helena Hadfield Site (30-049-0719). These were installed to provide comparison between the newly promulgated PM_{10} standard and TSP, and to compare TSP/Pb versus PM_{10}/Pb. Data collection began on July 1, 1988.

Three years of sampling showed that PM_{10}/Pb concentrations were consistently lower than TSP/Pb concentrations. Because of this relationship and the fact that the Pb NAAQS is based on TSP, the Department felt that discontinuation of PM_{10}/Pb monitoring was warranted. EPA approved the Departments request verbally on June 12, 1991, and in a letter dated August 14, 1991. PM_{10}/Pb monitoring was discontinued on August 10, 1991.

The Hadfield site PM_{10} concentrations over the three year sampling period were low with the highest annual arithmetic mean being only 38 ug/m^3. A request to discontinue PM_{10} sampling in East Helena was submitted to the EPA in a February 10, 1993, letter. The request was approved and PM_{10} sampling was discontinued on April 1, 1993.

From July 1, 1990, until March 31, 1991, the East Helena sites (except Hadfield) operated on an every day sampling schedule in support of data collection for the lead SIP. Since most of that effort has been completed, the Department proposed shutting down three of the TSP/Pb sites in East Helena. This request was made in a letter to EPA dated May 31, 1991. EPA responded in a letter dated August 14, 1991, agreeing to allow the termination of Microwave but wanted the Department to continue the other sites. They also wanted to activate another TSP/Pb site in the area of the old Hastie site (30-049-0002). A SIP provision required the State to run lead (and TSP) sites at Hadfield, Dartman Field, Firehall and Hastie, but Hastie had been shut down in 1985 due to siting difficulties. The Department responded in a letter dated September 9, 1991, stating modeling will be reviewed before establishing another site in the Hastie area. The Hadfield site was shut down June 1993 and the samplers were moved to the new Prickly Pear site (30-049-0727) which was started November 1993.

The current monitoring network consists of the following four TSP/Pb sites: Prickly Pear (30-049-0727), Firehall (30-049-0714), Dartman Field (30-049-0724), and Old Railroad (30-049-0726). Currently, Firehall runs on a 1-in-2 schedule. The other three

sites run at a 1-in-6 schedule (Prickly Pear runs collocated 1-in-6).

The Department intends to continue running the current network of TSP/Pb and PM_{10} sites in Helena and East Helena since it is adequate for SIP development purposes and compliance tracking.

PM_{10} monitoring has been proposed for the community of Lincoln (population 500). Lincoln is located west of the Continental Divide in the Blackfoot River Valley and is typical of many western Montana small towns. Lincoln is located in a deep, narrow river valley in a mountainous area with limited air dispersion and little control over open burning and residential wood burning. The Lincoln area typically experiences numerous inversions and poor visibility during the winter months. Additionally, a large scale open-pit gold mine is anticipated to begin operations near-by. Therefore, monitoring would be advantageous in this area to determine pre-mining PM_{10} concentrations.

A new PM_{10} site at the Rossiter School or at a similar location in the Helena Valley is proposed for 1996. Also, Lewis and Clark County has proposed to conduct a PM_{10} saturation study for the Helena area for the winter of 1996-1997.

2.6.3.6 SILVER BOW COUNTY

Butte is a city with an urban population of approximately 32,000. The elevation averages 5300 feet with the Continental Divide surrounding the city on three sides. Wind speeds in Butte are usually low and the area is susceptible to temperature inversions in the fall and winter. The old part of Butte is built on a hillside next to the Berkeley Pit mining area and the new part of town is built on the valley floor to the south.

Particulate monitoring has been conducted in Silver Bow County since 1971. In 1978-80, the Department conducted TSP monitoring in Butte as part of the Montana Air Pollution Study (MAPS). The network consisted of five sites in the city center. The Department has observed that the city center sites and specifically the Greeley School site (30-093-0005) had the highest particulate concentrations. The Department decreased its network to this single site in 1984.

The Department started daily PM_{10} sampling at the Greeley School site in September 1987. During the winter of 1987-88, the Department conducted a source apportionment study in Butte. The study involved collecting particulate data using dichotomous samplers; sources were then apportioned through chemical mass balance and optical microscopy techniques.

In November 1989, the Greeley School became a collocated PM_{10} site and on July 1992 the sampling frequency was changed from the every day sampling schedule to a 1-in-6 and a 1-in-2 schedule during the 2nd/3rd and 1st/4th calendar quarters respectively.

The Department developed the Butte PM_{10} SIP and submitted it to the EPA in November 1991. The control strategies included controls on residential wood combustion, paved and unpaved roads, and new operating permits for area mining activities.

As part of the SIP, an emission inventory for PM_{10} was conducted in Butte. The inventory identified an additional "hot spot" for PM_{10} emissions in a residential area near the Harrison Avenue-Interstate 90 intersection. During January 1991, the Department established the Butte-Greenhouse (30-093-0008) PM_{10} site in the maximum emission inventory grid near the intersection. During the 2 ½ years of operation, the Greenhouse site consistently had lower readings than the Greeley School site. With EPA approval, the Department shut down the Greenhouse site at the end of June 1992.

Visibility data was collected using a nephelometer at the Butte-Greeley School site (30-093-0005) from July 1989 to March 1993. The visibility data, correlated to PM_{10} concentrations, was used by the Butte-Silver Bow County Health Department (BSBHD) to call air pollution alerts for their mandatory wintertime wood burning curtailment program. The BSBHD nephelometer was replaced with a TEOM that started operating in August 1993. Year around data from the TEOM has been stored in AIRS since start-up. The manual PM_{10} sampling frequency changed to 1-in-6 (for all year) on 10/1/95.

2.6.4 AQCR 143 - EASTERN MONTANA

2.6.4.1 RICHLAND COUNTY

The air quality concerns in Richland County center around Sidney. Sidney (population 5,200) is situated near the Yellowstone River in far eastern Montana near the North Dakota border. In the late 1970's and early 1980's, the area experienced an economic upturn due to oil and gas exploration and development. Much of this upturn has since died down due to gas price stabilization. Other industrial sources in the Sidney area include Montana Dakota Utilities (coal-fired power plant) and Holly Sugar (sugar beet processing facility).

In 1983, the Department installed a hi-vol sampler in downtown Sidney (30-083-0010). This site operated until September 1987. At that time the PM_{10} standard had been promulgated by EPA and the Department felt that its resources were better applied to PM_{10}

problems in the western valleys.

2.6.4.2 ROSEBUD COUNTY

The air quality concern for particulate in Rosebud County centers around the cities of Colstrip and Ashland. In Colstrip there are four coal-fired power generating plants and two large coal mines. Montana Power Company (MPC), Western Energy, and Peabody Coal Company have operated particulate sampling networks around their facilities as conditions of their permits. In Ashland, there have been recent concerns due to point source emissions from a tepee burner and area sources including wood and coal burning stoves.

The Department requested Montana Power to install and operate a PM_{10} site at their MPC #3 site (30-087-0700). Two samplers (reporting and co-located) were installed in December 1989 and the data was submitted to the Department. The TSP samplers at MPC sites #1 & #2 (30-087-0701 and -0702, respectively) were replaced with PM_{10} samplers in July 1992. At that time the Department required MPC to operate the PM_{10} samplers at all sites on an every third day sampling schedule. In July 1994, MPC requested that the Department review their Colstrip PM_{10} network. As a result of that review changes were allowed starting on July 1, 1995. The PM_{10} sampling frequency at site #1 was reduced to once every sixth day and the PM_{10} sampling at site #2 was terminated.

2.6.5 AQCR 144 - NORTHWESTERN MONTANA

AQCR 144 includes Flathead, Lake, Lincoln, Mineral, Missoula, Ravalli and Sanders counties. This part of Montana is very mountainous and heavily forested. The valleys of northwestern Montana have the poorest atmospheric dispersion in the State, and high particulate concentrations historically have been a problem in this area. Two areas were originally designated non-attainment areas for TSP and now AQCR 144 has eight PM_{10} non-attainment areas. The Department has devoted considerable time and resources to solving the particulate problem in northwest Montana.

2.6.5.1 FLATHEAD COUNTY

The particulate problems in Flathead County center around the communities in the greater Flathead Valley. These communities include Kalispell, Columbia Falls and Whitefish.

Kalispell has a population of approximately 20,000-24,000 persons (metropolitan area) and the majority of the 70,000 county residents live within a 15 mile radius of the city. Kalispell

serves as a business, service and shopping center for the greater Flathead Valley. The Flathead Valley is located west of the Continental Divide and is a fairly wide valley (14 miles across). The climate is mild with calm or low wind speeds and the area is susceptible to temperature inversions in the fall and winter.

Particulate monitoring has been conducted in Kalispell since 1971. From 1977 to 1982, Kalispell was one of the communities involved with the Flathead River Basin EIS. Monitoring was conducted at several locations in the basin and it was determined that most of the high concentration sites were associated with anthropogenic sources in the city centers.

The current Kalispell site is at the old Universal Athletics location (30-029-1015) in the downtown area within one block of U.S. Highway 93. A TSP sampler operated at this site from 1980 until 1987. In 1985, the Department installed a PM_{10} sampler at this site and ran it concurrent with the TSP sampler. Anticipating promulgation of new PM_{10} NAAQS, the Department initiated a source apportionment study in Kalispell in 1986 and 1987. Kalispell was designated a Group I area after EPA promulgated the new PM_{10} standard in 1987. The Group I designation required the Department to conduct daily sampling, to develop a SIP which would identify source contributions, and to propose enforceable control strategies.

The source apportionment study identified re-entrained road dust as the predominant source followed by residential wood combustion. A PM_{10} SIP for Kalispell was developed and submitted to EPA on June 29, 1990. The final SIP (November 1991) consisted of controls on fugitive dust emissions from roads, parking lots, construction, and demolition.

The Department will continue PM_{10} monitoring at the Universal Athletics site to document maintenance and attainment of the standard. The Department considers the Universal Athletics site to be located at the maximum concentration area in Kalispell.

Visibility data was collected using a nephelometer at the Courthouse East site (30-029-1017) in Kalispell from January 1991 to March 1993. The nephelometer was operated by the Flathead County Health Department in response to citizens' concerns on air quality. The nephelometer was used to estimate particulate levels for the voluntary winter-time wood burning curtailment program. The nephelometer was replaced with a TEOM in October 1993. The TEOM and a SA-1200 were both installed in an adjacent building, East Maintenance Building (30-029-1018). The SA-1200 was collocated with the TEOM for data comparison. Year around data from the TEOM has been stored in AIRS since start-up. In 1995, this site was shut down and the TEOM moved to the Kalispell Universal Athletics (30-029-1015) PM_{10} non-attainment site. The

TEOM will be the primary SLAMS PM_{10} compliance monitor for this site. On June 27, 1995, EPA approved the Department's request to replace manual PM_{10} samplers at selected sites with TEOMs. The sampling schedule for the SA-321B sampler at Kalispell Universal Athletics was decreased to 1-in-6 year around with only one sampler at the site.

A new PM_{10} site was developed northeast of Kalispell along U.S. Highway 2 at the Evergreen Fire Station (30-029-0043). A Plum Creek sawmill and plywood plant is located ½ mile west of the site. This site started operation in June 1994 and has produced some mid-range PM_{10} concentration values. An additional sampler was added to this site in August 1995. This allowed the Department to increase the sampling frequency to 1-in-2 during the winter months.

Columbia Falls is an industrial town of about 3,000 people located in the northeast corner of the Flathead Valley. In the vicinity of Columbia Falls are a plywood-particle board-sawmill complex, an aluminum reduction plant and two other sawmills. Wind patterns in the area are dominated by drainage winds through Badrock Canyon to the east and through a gap north of town which drains the North Fork of the Flathead River. The area is susceptible to temperature inversions in the fall and winter months.

Particulate monitoring has been conducted in Columbia Falls since 1971. Initial sampling was performed using standard hi-vol TSP samplers. The two principal sites were at the Anders Residence (30-029-0005) and the Junior High School (30-029-0003).

In May 1985, the Department installed a PM_{10} sampler at the Junior High School, a site that had seen high TSP concentrations in the early 1970's. In October 1985, the Department also installed a TSP sampler at the same site. After two years of collecting TSP data at the Junior High School site, the Department compared Junior High versus Anders and determined that they were measuring the same air mass. As a result, the Department decided to shut down the Anders site and rely solely on the Junior High School site.

In October 1987, the 24-hour PM_{10} standard was exceeded resulting in the area being designated a non-attainment area. During the quarter following the exceedance, the Department commenced daily sampling. From September 1989 until April 1990, the Department conducted a source apportionment study in Columbia Falls. The results from this study indicated that fugitive dust was the major contributor to the PM_{10} problem. A SIP was developed and submitted to the EPA in November 1991. The SIP consisted of controls on fugitive dust emissions from roads, parking lots, construction, and demolition, as well as the Plum Creek facility.

The Department continues to operate PM_{10} samplers at the Junior

High School site. Ambient PM_{10} data from 1988 through present has shown no violations of either the annual or short-term PM_{10} standards. The Department will continue to operate the PM_{10} site at its present location and will use it for attainment and maintenance demonstration of the PM_{10} standard. The sampling frequency for the fourth and first quarters will be reduced to 1-in-3 from 1-in-2 starting in October 1996 at the Columbia Falls Junior High site.

Whitefish is a city of approximately 4,400 people located in the northwest corner of the Flathead Valley. Whitefish is not a major commercial or industrial center, but a year around tourist destination. The area is susceptible to temperature inversions in the fall and winter months.

As part of the Flathead River Basin EIS, the Department measured TSP in Whitefish from 1981 to 1983. The data showed that the area was in compliance with the TSP NAAQS. However, the Department believes that the site was not located in the maximum concentration area. As a result of the 1990 Network Review, the Department installed a PM_{10} site located in the central business district of Whitefish at Markus Foods (30-029-0039). Since sampling began in April 1991 numerous PM_{10} exceedances have been recorded at the Markus Foods site. Whitefish was officially designated as a non-attainment area in October 1993.

A source apportionment study (CMB) was conducted in Whitefish from January 1, 1993, through March 31, 1994. The CMB study samplers were located across the alley almost directly east of Markus Foods and a background site consisting of a single SA1200 sampler was established approximately 1 ½ miles east of Whitefish (Patterson Corral, 30-029-0041). The CMB study showed re-entrained road dust as the largest source of particulate.

To confirm the Markus Foods site as the maximum concentration PM_{10} site, a PM_{10} saturation study was done during February, March, and April of 1993. Eleven sites, most of which were located in areas with potentially high PM_{10} levels were chosen and portable saturation samplers were deployed at these sites. The results of the study revealed that elevated PM_{10} levels occur in the general downtown area and on south U.S. Highway 93; with no statistical difference between the two areas. As a result of this study, the Department intends to maintain Markus Foods as the maximum concentration site and there are no plans for additional sites in Whitefish. A TEOM was placed at the Markus Foods site in August 1995 and the sampling frequency for the associated PM_{10} manual sampler was reduced to 1-in-6.

The Department has proposed to develop a "background" site for the Flathead Valley away from large population centers at or near the Glacier International Airport (a relatively central location

between Kalispell, Whitefish, and Columbia Falls). Since all PM_{10} sites in the Flathead Valley are located near areas with high particulate concentrations, it would be advantageous to develop a site to measure PM_{10} in a less developed part of the valley. This site will be developed in 1996 with cooperation of the Flathead County Health Department (FCHD).

The Department has proposed to develop a PM_{10} site in Bigfork. The site is needed because of dusty roads, RWC, and projected high population growth.

2.6.5.2 LINCOLN COUNTY

The particulate problems in Lincoln County center around the communities of Libby, Eureka and Troy.

Libby is a small town with a population of approximately 2,500. It is located along the Kootenai River in northwestern Montana. The Kootenai Valley runs approximately east to west in Libby and is only about 2 miles wide. The Libby area may have the worst ventilation of any community in Montana. During the fall and winter months, the winds are almost always calm or very light. This, along with persistent temperature inversions, results in high particulate levels in the narrow valley.

Particulate monitoring has been conducted in Libby since the mid-1970's. The principal TSP sites were at the Brown Residence (30-053-0010) and the Lincoln County Courthouse (30-053-0012).

In May 1985, the Department installed a PM_{10} sampler at the Courthouse site and in August 1985, the Department discontinued the TSP sampler at the Brown Residence. Data analysis revealed that hi-vol TSP samplers at the Lincoln County Courthouse and the Brown Residence sites were measuring the same airshed.

From October 1987 until December 1988, the Department conducted a CMB source apportionment study in Libby. As a backup to CMB, the Department apportioned sources using the optical microscopy technique. The results of the study showed that re-entrained road dust and residential wood combustion were the principal sources.

A SIP was submitted to EPA on November 25, 1991, and upon review, the EPA requested that the Department commit to several revisions in order for the SIP to be considered for approval. These revisions were submitted to the EPA on May 24, 1993, and the SIP was approved by EPA on October 31, 1994.

Visibility data was collected using a nephelometer at the County Courthouse Annex site (30-053-0018) in Libby from December

1986 to October 1993. The nephelometer was operated by the Lincoln County Health Department and used to call alerts for their mandatory winter-time wood burning curtailment program.

The Department replaced the nephelometer with a continuous PM_{10} TEOM monitor at the Lincoln County Annex site (30-053-0018), which is one block east of the Courthouse site. The TEOM began operating in October 1993 and was primarily used for the Libby RWC curtailment program, the Montana Smoke Management program, and to correlate data with the PM_{10} samplers at the Courthouse. On April 1, 1995, the Courthouse site was shut down. The TEOM has become Libby's primary SLAMS PM_{10} compliance monitor. One of the SA-321B samplers from the Courthouse site was moved to the Annex site to be used for back-up purposes.

Eureka is a small town in northwestern Montana with a population of approximately 1,100. The town is situated in rolling hills along the Tobacco River approximately five miles upstream from Lake Koocanusa. Particulate monitoring for TSP started in 1984. Twenty-four hour concentrations exceeded the short-term TSP NAAQS on a few occasions. In 1987, the Department replaced the TSP sampler with a PM_{10} sampler and sampling continued through June 1992. Since PM_{10} levels were low, sampling was discontinued.

Troy is a small town 18 miles west of Libby with a population of approximately 1,000. The town is situated along the Kootenai River Valley and like Libby has some of the worst ventilation in the State. In October 1991, the Department installed two samplers at the high school (30-053-0019) in the northwestern part of town. Readings were consistently low for the three years that the site was operated. Therefore, the site was shut down June 30, 1995, and the samplers were utilized elsewhere.

The Department has proposed installation of a northwest Montana background site in Lincoln County, preferably at a USFS facility. In 1997, the Department will investigate possible site locations.

2.6.5.3 MISSOULA COUNTY

Particulate problems in Missoula County center around the city of Missoula. Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers in western Montana. The city proper has a population of approximately 45,000, but the Missoula Valley contains approximately 75,000. The Missoula Valley is fairly narrow (approximately 6 miles across) and similar to other western Montana valleys in that it is susceptible to temperature inversions in the fall and winter months and wind speeds are fairly calm throughout the year.

Particulate monitoring in Missoula has been conducted since 1971 at several sites in the Missoula Valley. The initial TSP particulate concentrations were measured with the standard hi-vol samplers. During the early to mid 1970's, the highest concentrations were measured in the downtown area at the Courthouse Roof site (30-063-0001). In 1977, after the passage of the Clean Air Act Amendments, Missoula was designated non-attainment for the primary TSP standards based on data from this site. As part of the SIP to control TSP, the city of Missoula incorporated a systematic program of street sweeping and flushing to show attainment by 1982. Although not part of the plan, Missoula implemented several control measures directed at emissions from residential wood combustion. The control measures brought the area into compliance with the annual NAAQS but occasionally the 24-hour standard was exceeded.

Over the years, the air monitoring network in Missoula has been quite extensive and comprehensive. The Missoula City-County Health Department (MCCHD) has monitored for particulate at several locations. In addition, the MCCHD has operated sites in Bonner (near a major sawmill/plywood factory), in Lolo (at the waste water treatment plant), near Frenchtown (by a kraft pulp mill), in East Missoula, in the Rattlesnake area, in southwest Missoula near the south hills and on the western edge of the city. For years MCCHD operated daily TSP monitoring at most of their major sites and obtained profiles of particulate trends in the Missoula Valley. In 1984, MCCHD also started collecting PM_{10} data at two of their sites (Rose Park and Boyd Park) in addition to all of their TSP data. The maximum PM_{10} concentration recorded in 1984 was 257 $\mu g/m^3$ at Rose Park.

During the fourth calendar quarter of 1986 and the first quarter of 1987, the MCCHD conducted a PM_{10} source apportionment study. The study showed that the major sources contributing to the PM_{10} problem were re-entrained road dust from the city's streets followed by residential wood combustion during the winter heating season. Missoula's SIP was developed and submitted to EPA.

The emission inventories developed in the SIP showed that the highest concentration grids are in south Missoula (where the Boyd Park site is located) and in downtown Missoula (where the Health Department site is located). The Department and the MCCHD will continue to operate these two sites to track compliance with the NAAQS.

PM_{10} data was collected in Missoula using a beta attenuation monitor (BAM) at the Boyd Park site (30-063-0024) from January 1992 to March 1994. Missoula personnel used the BAM data and forecast information from the National Weather Service to make predictions for their mandatory winter-time residential wood burning curtailment program. A TEOM was installed by the Department in October 1994 to replace the BAM. The BAM remains on-site as a

back-up device for the county's wood burning curtailment program. The TEOM data has been stored in AIRS since start-up. In 1995, the TEOM became the site's primary compliance and SLAMS monitor. One SA-321B sampler remains at the site.

The MCCHD will continue to jointly operate two PM_{10} sites with Stone Container near their Frenchtown kraft pulp mill. These sites were operated as TSP sites until May 18, 1992, when the samplers were switched to PM_{10} samplers.

In 1997, the Department is proposing additional PM_{10} monitoring in Missoula County to be implemented (in order of preference) in Lolo, Bonner, Seeley Lake, and Frenchtown.

2.6.5.4 RAVALLI COUNTY

Particulate concerns in Ravalli County center around the city of Hamilton. Hamilton is a small (population 2,800), but rapidly growing community situated in the center of the Bitterroot Valley. Hamilton is about 50 miles south of Missoula and about 300 feet higher in elevation. Hamilton often experiences better wintertime ventilation than nearby Missoula. There are times, however, when temperature inversions in Hamilton can trap pollutants and cause elevated levels.

In 1983, the Department began TSP sampling at the Ravalli County Courthouse (30-081-0001) in the city center. Sampling was initiated due to citizen complaints about dust and wood stove emissions. In 1986, the Department installed a PM_{10} sampler at the same location and continued to collect TSP and PM_{10} data until 1987.

On July 31, 1987, the EPA promulgated new standards for PM_{10}. The standards required daily monitoring at Group I areas and every other day monitoring at Group II areas. Based on these requirements and due to the low concentrations recorded at the Hamilton site, the Department discontinued both TSP and PM_{10} monitoring during the fall of 1987.

Because of the growing population and renewed citizen concerns, the Department reopened the Ravalli County Courthouse PM_{10} site (30-081-0001) in June 1994. A second site, MT Gold Realty (30-081-0002) was installed two blocks away adjacent to U.S. Highway 93 and began operation in July 1994. The MT Gold site has consistently produced PM_{10} values higher than the Courthouse site. Neither site has measured PM_{10} concentrations within 50% of the 24-hour NAAQS, however, monitoring will continue for at least one more year.

The Bitterroot National Forest voluntarily started two new PM_{10} sites in the Bitterroot Valley to measure forest related burn

activities on the valley's air quality. One site is located at the Stevensville-Ranger Station (30-081-0003) approximately 30 miles south of Missoula. This site supports one SA-1200 and one TEOM. Low PM_{10} values have been consistently reported since the site started in July 1994. The other site is located at the West Fork Ranger Station (30-081-0004) along the West Fork of the Bitterroot River south of Darby and about 20 miles south of Hamilton. This site has produced extremely low PM_{10} values since startup in July 1994. The Department may use data from this site for PM_{10} background information in southwestern Montana.

2.6.5.5 SANDERS COUNTY

Particulate concerns in Sanders County center around the city of Thompson Falls. Thompson Falls is a small town with a population of approximately 1,300 persons. It lies on the north side of the Thompson Falls Reservoir, a small impoundment on the Clark Fork River. The Clark Fork Valley around Thompson Falls runs east and west and mountains rise to 7000 feet both to the north and south of Thompson Falls. Like other western Montana valleys, the area experiences temperature inversions during the fall and winter months.

The Department conducted limited TSP monitoring in the early 1970's and again in 1978. It was not until 1983 that the Department established a permanent TSP site at the Sanders County Courthouse (30-089-0003). Readings collected during the first few years showed levels exceeding the NAAQS for TSP. In 1985, the Department installed a PM_{10} sampler at the same location. The PM_{10} data from 1985 to 1987 was somewhat limited, but did record concentrations approaching the proposed NAAQS for PM_{10}. In 1987, the Thompson Falls area was designated as a Group II area for PM_{10}.

In February 1988, the Sanders County Courthouse site recorded a PM_{10} concentration in excess of the 24-hour PM_{10} standard. This exceedance required the State to conduct daily sampling and to develop a SIP with control strategies to bring the area into compliance. The Department initiated daily sampling in July 1988 which continued until July 1, 1992. The site currently runs on a 1-in-6 and a 1-in-2 frequency during the 2nd/3rd and 1st/4th quarters respectively. This site may add a collocated sampler in 1997.

The Department performed a source apportionment study in Thompson Falls from October 1990 until April 1991. The CMB monitors were installed at the Railroad site (30-089-0005), across Main Street from the Courthouse site. In addition, the Department installed a background PM_{10} sampler in an open field at the Muster Ranch (30-089-0006), a few miles north of Thompson Falls.

Following a technical study and emission inventory in Thompson Falls, it was determined that re-entrained road dust was the major contributing source of PM_{10} emissions. Minor sources were shown to be wood combustion and the WI Forest Products boilers. A control plan was developed and submitted to EPA 7/10/96. The proposed control strategy involves more frequent street sweeping.

2.7 METEOROLOGICAL MONITORING

2.7.1 AQCR 140 - SOUTH CENTRAL MONTANA

AQCR 140 is located in south central Montana and includes physical features common to all of the other AQCRs in the State. The Yellowstone and Musselshell Rivers cut through the region from west to east and the Missouri River forms the northern border. The Highwood, Big Belt, Crazy, and Absoroka Mountains border the region to the west. The southern border of the region includes the Beartooth, Pryor and Big Horn Mountains. To the east the boundary cuts through rolling plains and foothills and includes the lower portion of the Musselshell River.

Due to the diverse nature of the terrain and climate in this region, dispersion characteristics are highly localized and are quite variable. Mountainous terrain can provide shelter from prevailing winds and severely limit dispersion of pollutants in one area while funneling high winds into another to greatly enhance the dispersion. Temperature inversions which trap pollutants are common in this region throughout the year but the depth, duration and intensity vary widely from the mountains to the plains. Inversions on the plains seldom persist past noon and are usually shallow and weak. Inversions in the mountainous areas are usually much stronger and deeper and can persist for several days during the fall and winter. Wind speed and direction patterns in the mountains are significantly affected by terrain and generalizations or comparisons to any existing measurements at other sites are not very practical. Wind patterns on the flatter portion of the region can be evaluated by comparison to existing sites and generally show the prevailing winds to be from the west and southwest.

2.7.1.1 YELLOWSTONE COUNTY

Meteorological monitoring in Yellowstone County consists of two sites operated by the Department, one site operated by the Yellowstone County Air Pollution Control (YCAPC), two sites operated by Yellowstone Generation Inc. (YGI), three sites operated by a group of Billings/Laurel industries (BLAQTC), and one site at Billings Senior High School.

As stated previously, Billings and Laurel are situated along

the Yellowstone River Valley in south central Montana. The Yellowstone River Valley runs from southwest to northeast and is a predominant topographical influence on the airflow in the area. In Billings, there are cliffs or rimrocks located both north and south of the river which also tend to cause channeling. The distance between the north and south rims ranges from about one to five miles. In Laurel, the valley tends to be a little wider and the predominant high terrain is not close by. The cities of Billings and Laurel and all of the industrial sources are located along the river valley. Nearby terrain is often higher than the highest smoke stacks.

The Department operates a 10 meter meteorological tower at its site at Coburn Road (30-111-0066). The met sensors were previously on a six foot tripod on top of the monitoring trailer. On November 14, 1990, the Department installed a 10 meter tower in the field near the monitoring shelter. Temperature data (at two meter probe height) is also collected at the site. The Coburn Road site is situated about 300 feet above the valley floor on the south rims. The wind data is used to determine which source or sources contributed to SO_2 readings at the site. The wind data was also used in connection with the area wide SO_2 dispersion modeling study.

The Department also operates met sensors at its site at Sacrifice Cliff (30-111-0080). This site is located on a six foot tripod on top of the sampling shelter. Because of the inability to comply with siting requirements (too close to Sacrifice Cliff) and the proximity to the Coburn Road site, the Department decided not to install and guy a 10 meter tower at this site. However, like Coburn Road, the wind data is used to determine which source or sources contributed to SO_2 readings at the site.

The YCAPC operates a met sensor at the Mount Olive CO site (30-111-0079). The met sensor is on a six foot tripod on top of the monitoring shelter. The site does not meet siting criteria for probe height but the met data is used for reviewing the meteorological conditions contributing to high CO readings.

BLAQTC operates three meteorological stations at its three SO_2 sites in Billings and Laurel. These sites are Lockwood Park (30-111-1065), Laurel Farm (30-111-0016) and Brickyard Lane (30-111-2005). All meteorological equipment is located on 10 meter towers. Analog signals are recorded on chart with the digital signal being stored on magnetic disk. The wind data is used to determine which source or sources contributed to SO_2 readings at the site. The wind data was used in the area wide SO_2 dispersion modeling study.

YGI operates meteorological stations at both of its SO_2 sites in Billings. These sites are Johnson Lane (30-111-2006) and Pine Hills (30-111-2007). All meteorological equipment is located on 10

meter towers. Analog signals are recorded on chart with the digital signal being stored on magnetic disk. The wind data is used to determine which source or sources contributed to SO_2 readings at the site.

GeoResearch, Billings, MT operates a meteorological station at Billings Senior High School (30-111-2008). The site began recording met data 12/18/95.

2.7.2 AQCR 141 - NORTH CENTRAL MONTANA

AQCR 141, located in north central Montana, is a region of rolling glaciated plains. The Milk, Marias, Teton and Missouri Rivers cut across the region from the west to east creating substantial river valleys that are hundreds of feet lower than the upland bench areas. Relatively small, isolated mountain ranges, the Highwood, Bear Paw and Little Rocky Mountains, rise up from the plains in the eastern half of the region. The western boundary of the region is formed by the Continental Divide and includes most of the area known as the Rocky Mountain Front. The foothills of the Big and Little Belt Mountains form the southern boundary along with the Missouri River. The eastern boundary cuts across the plains north of the Little Rocky Mountains to the Canadian border which is the northern boundary of the region.

With the exception of the isolated mountainous areas most of the region experiences a similar climatological regime with warm dry summers and cold dry winters interrupted by occasional Chinooks. Dispersion potential in the region is generally excellent due to persistent and often very strong winds. Temperature inversions in the area, though frequent, are usually shallow and seldom last past noon. The exceptions to this rule are to be found in the mountainous areas and occasionally in the river valleys. During the winter it is possible to have a warm wind blowing along a bench while cold air remains trapped in the bottom of a valley only a few miles away. Persistent inversions have also been noted in the narrow valleys of the Little Rocky Mountains. The wind flow over the region is generally from the west or southwest unless cold northerly winds are sweeping down from the arctic. Precipitation amounts are uniformly low over the entire region.

2.7.2.1 CASCADE COUNTY

Meteorological monitoring in Cascade County consists of the Wire Mill Road site (30-013-2000) located east of the Montana Refining facility in Great Falls. The Skyway Conoco site met monitoring was discontinued 10/20/95 due to the placement of a large sign near the site which affected air flow. The Wire Mill

Road site met sensors are on a 10 meter tower. The wind data analog signal is digitized and stored on magnetic media. The met data is used to review the meteorological conditions contributing to high SO_2 readings.

2.7.3 AQCR 142 - SOUTHWESTERN MONTANA

AQCR 142 is located in the southwestern corner of Montana. The region contains several distinct mountain ranges separated by wide valleys. The valleys run north and south and can be thousands of feet lower than the surrounding mountains. Tributaries for the Missouri, Yellowstone and Clark Fork Rivers have their beginnings in this area.

The mountainous terrain in the region substantially impacts the weather patterns. Precipitation is often limited to the higher mountains while the valleys remain much drier. Winds along the mountain tops are generally westerly and frequently will not reach down into the north-south running valleys. Inversions are frequent and during the fall and winter can persist for days at a time. Occasional severe inversions can be several thousands of feet deep and very strong allowing almost no dispersion of pollutants. This allows even small emission sources to produce localized areas of poor air quality. Wind speed and direction patterns in this region are highly localized and cannot be adequately characterized by off-site measurements.

2.7.3.1 LEWIS & CLARK COUNTY

Meteorological monitoring in Lewis & Clark County is conducted at six sites operated by ASARCO in East Helena. ASARCO's original met sites in East Helena are located at the Firehall (30-049-0714), Old Railroad (30-049-0726), Kennedy Park (30-049-0703) and Zinc Stack (30-049-0721). Meteorological sensors at the zinc stack are located at mid-stack level and at stack top. All other meteorological sites are located at 10 meter towers (except Firehall which is at 12 meters) and conform to EPA siting criteria. All four meteorological sites have operated since December 1, 1989. Data collected from these sites is used in connection with the East Helena Lead and SO_2 SIPs. The meteorological data is used as input to dispersion models to assess impacts from the smelter and to address control strategies. As part of the SO_2 SIP revisions ASARCO added two new met sites which utilize 10 meter towers and meet all siting requirements. Data collection at the Top of Microwave (30-043-0909) and the McClellan Creek Road #5 (30-043-0912) sites started on April 1, 1993.

Digital signals from met sensors are directly written to magnetic storage media. No chart recorders are used with these

monitors. The company uses QA procedures which allow for proper data collection.

2.7.4 AQCR 143 - EASTERN MONTANA

AQCR 143 makes up the eastern third of Montana. Rolling glaciated plains cover the northern half of the region while rolling sedimentary plains cover the southern half. The Missouri River cuts from west to east in a deep valley in the glaciated northern half of the region while the Yellowstone River travels to the northeast in a wide but shallow valley through the southern half. The terrain is often quite rough but generally does not produce noticeable terrain effects on the meteorology and climatology of this region.

The weather is typical of the northern Great Plains with hot dry summers and cold dry winters. Chinooks occur but are not as frequent as they are in AQCR 141. Precipitation totals are generally low throughout the region with thunderstorms producing a significant amount of the total precipitation. The wind patterns here can be characterized by existing off-site measurements and are usually westerly. Dispersion in this region is excellent as a rule. Shallow and short-lived inversions are frequent especially in the southern part of the region.

2.7.4.1 ROSEBUD COUNTY

Meteorological monitoring in Rosebud County centers around Montana Power Company's coal-fired power plants in Colstrip. MPC operates two meteorological sites. These are at MPC #1 (30-087-0701) and MPC #2 (30-087-0702). Meteorological monitoring was discontinued at MPC #3 (30-087-0700) on 6/30/92. MPC sites #1 and #2 are located adjacent to MPC's SO_2 and NO_2 continuous monitoring sites. The data is used to review meteorological conditions that may contribute to elevated readings.

2.7.5 AQCR 144 - NORTHWESTERN MONTANA

AQCR 144 makes up the northwestern corner of Montana and is entirely west of the Continental Divide. The terrain here is uniformly mountainous as is AQCR 142 but the valleys are generally narrower and lower than the valleys of AQCR 142. The mountain ranges and valleys here also run from the north to the south with the mountaintops thousands of feet higher than the valley floors. The area is drained by the Clark Fork and Kootenai Rivers and includes all of the Flathead and Bitterroot drainage.

The strong Pacific influence and mountainous terrain in the

region substantially impact the weather. Precipitation amounts here are the highest in the State and the winters are also warmer and wetter. Winds along the mountaintops are generally westerly and frequently will not reach down into the north-south valleys. Inversions are frequent, and during the fall and winter can persist for many days. Warm Pacific air frequently overrides colder air trapped in the valleys producing severe inversions several thousands of feet deep causing poor pollutant dispersion. This allows small emission sources to produce localized areas of poor air quality because dispersion potential in this region is the lowest in the State. Wind speed and direction patterns in this region are highly localized and cannot be adequately characterized by off-site measurements.

2.7.5.1 MISSOULA COUNTY

Meteorological monitoring in Missoula was conducted at the Missoula City-County Health Department's CO site at Malfunction Junction (30-063-0005). The meteorological sensors were on a six foot tripod on top of the sampling shelter.

Due to the multiple use conditions at the fairgrounds (where the site was located) and safety reasons, it was impossible to install and guy a 10 meter tower at this site. The Department and Missoula County decided that met data collection would be stopped on April 1, 1993, since the data collected with the tripod could not be used for dispersion modeling purposes. The absence of met data at the Malfunction Junction site is not a serious problem since nearly all of the CO NAAQS exceedances in Missoula have occurred under stagnant air conditions.

As part of the H_2S and NOx monitoring network at Stone Container met data is collected at the Moccasin Lane site, Stone Container #1A (30-063-034). The meteorological site utilizes a 10 meter tower and meets all siting requirements.

3.0 NETWORK MODIFICATIONS

As stated in the introduction, the Department must conduct a review (1) to determine if the system (monitoring network) meets the monitoring objectives defined in Appendix D of CFR Part 58, and (2) to identify needed modifications of the network, such as the termination or relocation of unnecessary stations or the establishment of new stations which are necessary.

The Department is also required to develop and implement an annual schedule modifying the network in order to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the Regional Administrator of EPA during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval of the Regional Administrator.

The regional office of the EPA (Region VIII) established a form and a procedure for documenting and requesting modifications to the network. This form is known as the Network Modification Request Form. The State is required to submit this form in advance requesting EPA approval of any proposed network modification.

Proposed (and accomplished) network modifications for FY96 are listed in Table 6. Network modifications proposed for FY97 are listed in Table 7.

4.0 AIR MONITORING EQUIPMENT NEEDS

The Department operates various equipment to measure pollutants and meteorological parameters at monitoring sites across Montana. The Department also uses shelters, calibrators and various other equipment and devices in support of that monitoring. As the equipment becomes old, it often needs to be upgraded or replaced. When the Department adds sites to its network, new equipment must be purchased. Each year the Department budgets money to purchase new and replacement equipment.

During FY96, the Department purchased several pieces of equipment. These are listed in Table 3. In FY96, the Department spent a total of $22,224 on major air monitoring equipment purchases. This included $1,230 for replacement items and $20,224 for new equipment.

In FY97 the Department intends to spend approximately $49,000 for new or replacement equipment (dependant on funding). Table 4 contains a list of the proposed purchases.

Table 5 is a list of air monitoring equipment that is currently used at state and county operated sites, or will be used at proposed sites. The table also includes equipment used or needed for special projects. The table lists equipment, manufacturer, model, acquisition date, condition and replacement costs at each site. As requested by EPA, an equipment replacement plan is provided in the table.

5.0 SUMMARY AND CONCLUSIONS

5.1 EXECUTIVE SUMMARY

Each year the Department is required to develop and implement an annual schedule modifying its air monitoring network in order to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the Regional Administrator of EPA during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval of the Regional Administrator.

During 1996, the Department and county agencies operated 29 air monitoring stations. Some of the stations collected multiple parameters. There were 20 PM_{10} sites, 5 CO sites, 2 SO_2 sites, 4 TSP/lead sites, and 3 meteorological monitoring sites. The Department also relies on companies to monitor air quality around their own facilities. Company monitors listed in this report are mostly those required by Prevention of Significant Deterioration (PSD) permits or needed to assess ambient levels in or near federally designated non-attainment areas.

For FY96, the Department listed 33 goals or modifications of the network. The Department implemented 15 of these goals. Some proposed new sites were not installed due to funding, equipment and personnel limitations. For FY97, the Department has listed 30 goals or modifications to the network. Some of these goals remain from the year before.

5.2 HISTORICAL SUMMARY

The Montana ambient air quality network has undergone many changes from 1986 to 1996. The majority of the changes involved particulate monitoring. In the mid 1980's the Department had a large network of TSP samplers in the State. These were located in large communities, small communities and near problem areas. On July 31, 1987, the EPA promulgated a new standard for PM_{10}. Several areas in Montana were designated Group I (greater than 95% probability of exceeding the standard) and Group II (between 20% and 95% probability of exceeding the standard). These designations required the Department to do daily sampling in the Group I areas and every other day sampling at the Group II areas. As a consequence, many of the TSP sites were discontinued and PM_{10} samplers were moved to allow adequate coverage in the Group I and II areas. In 1993, the first PM_{10} saturation study was conducted in Whitefish. Also, the nephelometer, used by the county air agencies to operate episodic curtailment programs, were replaced by state-of-the-art continuous PM_{10} samplers (TEOMS).

The next biggest change came in the SO_2 monitoring network in the Billings/Laurel area. In early 1987, the Department was nearly out of the SO_2 monitoring business in Yellowstone County. This was mostly due to personnel cutbacks and prioritization of resources. Due to legislative funding and the creation of the Billings/Laurel Air Quality Technical Committee, renewed emphasis was placed on SO_2 monitoring.

Two dispersion modeling studies resulted in the establishment of an EPA approved modeled maximum SO_2 site, Sacrifice Cliff, in Billings. Two additional industry operated SO_2 sites, South Johnson Lane and Pine Hills, were installed at the end of 1993. Both were sited as a result of dispersion modeling. Currently there are seven SO_2 sites operating in Billings-Laurel-Lockwood area.

In April 1991, the EPA notified the Department that the East Helena SO_2 SIP was inadequate. As a result of the dispersion modeling performed for the SIP revision the SO_2 monitoring network was greatly expanded. There are now 13 SO_2 sites operating around the ASARCO lead smelter.

In October 1988, the EPA notified the Department that the East Helena lead SIP was inadequate. As a result, the lead monitoring network needed to be expanded in support of the SIP development process. At present, there are four lead monitoring stations around East Helena.

For carbon monoxide, the size of the network has stayed the same but adjustments have been made to locate sites in microscale maximum concentration sites. As a result of the December 1991 saturation study, the Billings Metra CO site was shut down and two new microscale CO sites were established in Billings. The downtown CO site was initially in the Diamond Parking lot, but when that property closed the Department and YCAPC relocated the CO site across 27th Street and further south on 27th Street to the Norwest parking lot.

The CO site in Great Falls was also moved to accommodate the microscale siting requirement. A CO saturation study was conducted in January 1992 which confirmed that the current CO site in Great Falls is at the maximum concentration location.

In Missoula, the Department shut down one of two CO sites: (1) to economize resources and (2) because adequate maximum concentration coverage was provided with the one site. These actions were confirmed by a saturation study conducted in December 1992.

The Department conducted a CO saturation study during the winter of 94-95 in Kalispell. Subsequently, the Department

established a CO site in Kalispell, Idaho and Main (30-029-0045). This site recorded two exceedances of the 8-hr NAAQS in January 1996. In December 1996, the Department conducted a CO saturation study in Butte and is considering establishing a CO site in Butte in the spring of 1997.

With each successive network review, the Department will continue to refine its network. This document shows (in part) that the Department will continue to cooperate with industries and will rely on their resources to conduct monitoring associated with their sources. This is evident in East Helena (Pb & SO_2 monitoring), Billings (SO_2 monitoring), Colstrip (PM_{10}, SO_2 and NO_2 monitoring) and Missoula (PM_{10} monitoring).

Appendix C contains historical data summaries for pollutants of current interest.

5.3 CURRENT AIR MONITORING NETWORK

During 1996, the Department and county agencies operated 29 air monitoring stations. Some of the stations collected multiple parameters. There were 20 PM_{10} sites, 5 CO sites, 2 SO_2 sites, 4 TSP/lead sites and 3 meteorological monitoring sites. Table 1 lists the current air monitoring stations operated by State and county governments with a short historical narrative. In both Tables 1 and 2 the new proposed sites are underlined. Table 2 provides a "short list" of the current air monitoring stations operated by State and county governments.

There are also several sites on Table 2 that are operated by companies around their facilities. The companies are generally required to operate these sites because of Prevention of Significant Deterioration (PSD) permits or because they are in or near areas designated non-attainment of a National Ambient Air Quality Standard (NAAQS).

5.4 EQUIPMENT STATUS

As mentioned in Section 4.0 AIR MONITORING EQUIPMENT NEEDS, the Department operates various equipment to measure pollutants and meteorological parameters at monitoring sites across Montana. During FY96, the Department purchased several major pieces of equipment. In FY96, the Department spent a total of $22,224 on air monitoring equipment. This included $20,994 for replacement items and $1,230 for new equipment (Table 3).

During FY97 the Department plans to spend approximately $49,000 to purchase equipment (Table 4). The Department will purchase equipment depending on the availability of funding and the

priority placed on establishing new sites. The Department remains committed to upgrading its system, maintaining a high level of equipment dependability, and achieving a high level of data quality and data quantity (percent data recovery), by using the best available equipment.

5.5 NETWORK MODIFICATIONS FOR FY96

Table 6 lists the network modifications goals for fiscal year 1996. A status statement is written below each of the goals. Of the 33 items listed, the Department has completed 15. Of the completed items, the most numerous are site modifications for PM_{10} areas.

5.6 NETWORK MODIFICATION GOALS FOR FY97

Table 7 lists the network modification goals for fiscal year 1997. There are 30 items on this list which details studies, changes or modifications in the network.

This list contains some of the items not completed in FY96. Carryover items include installing PM_{10} sites in northern Jefferson County, Lolo, Seeley Lake, Frenchtown, and Bonner.

The Department plans to upgrade or replace equipment at several of its monitoring stations. These proposed purchases are listed as goals in Table 5. Additional purchases will be made through the year and equipment will be replaced as the State budget and EPA funding allows.

APPENDIX A: TABLES FOR NETWORK REVIEW

TABLE 1

MONTANA AMBIENT AIR MONITORING NETWORK

AIRS Number	Site Name/Address City/County	Parm	Year of Record	Station Type	Spatial Scale	Monitoring Objective*
30-013-0009	Fire Station #1 Great Falls/Cascade	PM_{10}	88-96	SLAMS	Neigh.	H,P
	The Fire Station site currently supports two Sierra-Anderson SA-321B samplers running at a sample frequency of 1-in-6. No changes are anticipated for this site in FY97.					
30-013-1025	Skyway Conoco Great Falls/Cascade	CO	89-96	SLAMS	Micro.	H,P,S
	The January 1992 CO saturation study results indicated slightly higher CO levels a couple of blocks to the east of Skyway Conoco but the differences were not significant. An attempt was made to secure permission to move the site to the east but Cascade County could not get permission from the landowners. Therefore, the Skyway Conoco site will remain where it is and there are no plans for a second CO site in Great Falls.					
30-017-XXXX[1]	Miles City urban area Miles City/Custer	PM_{10}	96	SPM	Neigh.	P
	A proposed new site in the Miles City downtown area. The last monitoring in Miles City was for TSP in 1983. PM_{10} monitoring will provide an updated data base.					

* H=high concentration, P=high population, S=source impact, B=background

[1] Proposed new sites are underlined.

30-027-XXXX	**Lewistown urban area** **Lewistown/Fergus**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P**

A proposed new site in the Lewistown downtown area. The last monitoring in Lewistown was for TSP in 1983. PM_{10} monitoring will provide an updated data base.

30-029-XXXX	**Central Flathead Valley** **Kalispell/Flathead**	**PM_{10}**	**96**	**SPM**	**Urban**	**B**

This is a proposed new site to be utilized as a background site for the Flathead Valley. All the current sites in the Flathead Valley are in non-attainment areas or located as SPM sites for monitoring immediate area sources. This site is needed to determine the PM_{10} background levels in the valley that are influencing other sites. The chosen location should be away from local influences, but centrally located between the three non-attainment areas of Kalispell, Whitefish, and Columbia Falls.

30-029-XXXX	**Bigfork area** **Bigfork/Flathead**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P**

A proposed new site in Bigfork which will provide a PM_{10} data base for this area. Monitoring is needed because of rapid growth, lack of data, residential wood combustion, and dirty streets.

30-029-0003	**Col. Falls Jr. High** **Columbia Falls/** **Flathead**	**PM_{10}**	**85-96**	**SLAMS**	**Neigh.**	**H,P**

PM_{10} monitoring started April 1987 and has continued to the present. The Jr. High site supports three Wedding PM_{10} samplers that run 1-in-2 and 1-in-6 schedules during the 1st/4th quarters and 2nd/3rd quarters, respectively. The old Wedding samplers may be replaced with Sierra Anderson SA-321B PM_{10} samplers in the near future depending on available resources. The sampling frequency was reduced to 1-in-3 during the 1st/4th quarters in October 1996.

30-029-0039 **Markus Foods** **PM_{10}** **91-96** **SLAMS** **Neigh.** **H,P**
Whitefish/Flathead

The Markus Foods PM_{10} site, started on April 30, 1991, is located in the Whitefish central business district.

Numerous exceedances have been measured at the Markus Foods site since PM_{10} sampling began. Whitefish was officially designated a non-attainment area in October 1993. To verify the Markus Foods site as the maximum concentration site a PM_{10} saturation study was conducted during February, March, and April 1993. The study confirmed that the Markus Foods site is within the maximum concentration area.

The Markus Foods site supports two Sierra Anderson SA-321B samplers which operate on a 1-in-6 schedule. In 1995 a TEOM was installed. The TEOM is situated in a special outdoor enclosure and linked to the DEQ via modem for data recovery and equipment monitoring. In 1996 the sampling frequency will be changed to 1-in-3 during 4th/1st quarters and 1-in-6 during 2nd/3rd quarters.

30-029-0041 **Patterson Corral** **PM_{10}** **93-94** **SPM** **Neigh.** **B**
Whitefish/Flathead

This special purpose monitoring site was established to serve as the background site for the Whitefish chemical mass balance study. It was located approximately 1 1/2 miles directly east of Whitefish in an alfalfa field next to a corral. It consisted of a single SA1200 sampler that ran on a 1-in-6 schedule. Monitoring at this site was discontinued in April 1994.

30-029-0043 **Evergreen Fire Station** **PM_{10}** **94-96** **SPM** **Neigh.** **H,P,S**
Kalispell/Flathead

PM_{10} sampling started at the Evergreen site in June 1994. The site is located next to U.S. Highway 2 and supports one Sierra Anderson SA-1200 sampler. In 1995 a second SA-1200 sampler was installed to accommodated

more frequent sampling. The sampling frequency is 1-in-3 during the 4th/1st quarters and 1-in-6 during the 2nd/3rd quarters.

30-029-0045 **Idaho and Main** **CO** **95-96** **SLAMS** **Micro.** **H,P**
Kalispell/Flathead

This CO site is located near the intersection of U.S. Highway 93 and U.S. Highway 2 (Idaho Ave & Main St). Valid data collection began in October 1995. Two exceedances (8-hr NAAQS) were recorded in January 1996.

30-029-XXXX **Laser School** **CO** **96** **SPM** **Neigh.** **P**
Kalispell/Flathead

This is a new CO site located near the intersection of E. Washington and 6th Avenue EN. Valid data collection should begin in October 1996.

30-029-1015 **Universal Athletics** **PM_{10}** **85-96** **SLAMS** **Neigh.** **H,P**
Kalispell/Flathead

PM_{10} sampling began in April 1987 and has continued since. The UA site currently supports one Sierra Anderson SA-321B sampler which operates on a 1-in-6 schedule. A TEOM was installed in 1995. The TEOM is situated in a special outdoor enclosure and linked to the DEQ via modem for data recovery and equipment monitoring. In 1996 the sampling frequency will be changed to 1-in-3 during the 4th/1st quarters and 1-in-6 during the 2nd/3rd quarters.

30-029-1018 **E. Maintenance Building** **PM_{10}** **93-95** **SPM** **Neigh.** **P**
Kalispell/Flathead

The main purpose of this site was to collect PM_{10} data with a high volume sampler to compare with PM_{10} data collected with a continuous TEOM sampler.

Both TEOM and PM_{10} data collection was started in October 1993. The TEOM and PM_{10} sampler were discontinued at this site during 1995 and the TEOM

was moved to a higher concentration area at the Universal Athletics site (30-029-1015).

30-031-0002 East Main City Bldg. PM_{10} 85-96 SLAMS Neigh. H,P
Bozeman/Gallatin

PM_{10} sampling began in April 1987 and has continued since in one of the fasted growing cities in Montana.

The East Main site currently supports two Sierra Anderson SA-321B samplers which operate on a 1-in-2 and 1-in-6 schedule during the 1st/4th quarters and 2nd/3rd quarters, respectively. No changes are planned for this site in FY97.

30-031-0008 Belgrade ConAgra PM_{10} 91-96 SLAMS Neigh. H,P
Belgrade/Gallatin

This PM_{10} site was installed in an open field behind the Belgrade ConAgra elevators near residential areas and began operation in October 1991.

The site currently supports two Sierra Anderson SA-1200 samplers which operate on a 1-in-2 and 1-in-6 schedule during the 1st/4th and 2nd/3rd quarters, respectively. The Department intends to continue the status quo for the foreseeable future.

30-031-0009 YNP-West Entrance PM_{10} 94-95 SPM Micro. P,B
West Yellowstone/Gallatin

This PM_{10} site was installed in October 1994 as a micro-scale sampler to monitor PM_{10} concentrations derived mainly from snowmobile traffic at the West Entrance Station of Yellowstone National Park. The sampler was located immediately east of the kiosk (ticket booth). The sampler used was a Wedding PM_{10} sampler borrowed by the National Park Service (NPS) from the Bitterroot National Forest in Missoula. The site was discontinued in March 1995 after the park was closed to snowmobile traffic. The PM_{10} samples from this site were consistently very low.

30-031-0012 **Firehole** PM_{10} **95-96** **SPM** **Neigh.** **H,P**
West Yellowstone/Gallatin

This PM_{10} site was started on 11/27/95 in a vacant lot near the intersection of Firehole Avenue and Dun Raven Street. This location is near the center of West Yellowstone. The site currently supports two Sierra Anderson SA-1200 samplers which operate on a 1-in-2 and 1-in-6 schedule during the 1st/4th and 2nd/3rd quarters, respectively. No changes are planned for this site in FY97.

30-043-XXXX **Montana City Area** PM_{10} **96** **SPM** **Neigh.** **P,S**
Montana City/Jefferson

The Montana City School is a proposed location for a PM_{10} site located in the northern most end of Jefferson County near East Helena. The Ashgrove cement plant is located a short distance northeast of this site and ASARCO to the north. This area is a fast growing residential community with influence from residential wood combustion that may directly impact the Helena area (southern end of Lewis & Clark County) during winter.

30-043-0903 **Microwave** SO_2 **74-96** **SPM** **Neigh.** **H,S**
Montana City/Jefferson

This is an older site where the state and ASARCO measured TSP, Pb, and SO_2 for several years. EPA approved this site as a SLAMS site in an undated letter (received 1-14-91). This site was operated as a background site for lead for the East Helena lead SIP. Since data needs were met and concentrations were low, the Department terminated TSP and Pb at this site on 6-30-91. ASARCO continues to collect SO_2 data at this site.

30-043-0908 **Ash Grove Siding** SO_2 **89-96** **SPM** **Neigh.** **S**
Montana City/Jefferson

This site is operated by ASARCO and is part of their network around their primary lead smelter. The Department formally documented this site using the network modification request forms (letter and forms dated 6-27-90).

EPA approved this site as a SLAMS equivalent special purpose monitor (SPM). in an undated letter (received 1-14-91). This site continues to operate.

30-043-0909 **Top of Microwave** **SO_2** **93-96** **SPM** **Neigh.** **H,S**
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-043-0910 **McClellan Creek Road#3** **SO_2** **93-96** **SPM** **Neigh.** **H,S**
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-043-0911 **McClellan Creek Road#4** **SO_2** **93-96** **SPM** **Neigh.** **H,S**
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the

SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-043-0912 **McClellan Creek Road#5** **SO_2** **93-96** **SPM** **Neigh.** **H,S**
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-043-0913 **McClellan Creek Road#6** **SO_2** **93-96** **SPM** **Neigh.** **H,S**
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-043-0914 **McClellan Creek Road#7** **SO_2** **93-96** **SPM** **Neigh.** **H,S**
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the

SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-043-0915 McClellan Creek Road#8 SO_2 93-96 SPM Neigh. H,S
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-043-0916 McClellan Creek Road#9 SO_2 93-96 SPM Neigh. H,S
Montana City/Jefferson

This site is operated by ASARCO. In 1992, dispersion modeling was performed as part of the SIP revisions. That modeling indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest of the smelter in Jefferson County. As a result the ambient SO_2 monitoring network was significantly revised in the spring of 1993. Once the SIP is approved and the control measures implemented the SO_2 monitoring network will be reduced to only those sites necessary to adequately monitor the maximum SO_2 impact areas.

30-049-0001 Cogswell Building PM_{10} 85-96 SLAMS Neigh. P
Helena/Lewis & Clark

PM_{10} sampling began in April 1987 and has continued since. The Cogswell site currently supports one Sierra Anderson SA-321B sampler operating at a frequency of 1-in-6. No changes are planned for this site in FY97.

30-049-0018	**Lincoln School Helena/Lewis & Clark**	**PM_{10}**	**91-96**	**SLAMS**	**Neigh.**	**H,P**

The Lincoln School site is operated by the Lewis & Clark County Health Department for their winter-time residential wood burning curtailment program.

The Lincoln School site currently supports one Sierra Anderson SA-321B sampler and a TEOM continuous PM_{10} monitor. The TEOM was installed in October 1993 and became the primary SLAMS monitor in 1995. The SA-321B sampler operates at a sample frequency of 1-in-6 year around.

30-049-XXXX	**Lincoln area Lincoln/Lewis & Clark**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P**

The Lincoln area is a new area proposed for PM_{10} monitoring. Lincoln is typical of many western Montana small towns located in mountainous areas, it's in a deep, narrow valley with limited air dispersion and with little control over open or residential wood burning. The Lincoln area typically experiences numerous inversions and poor visibility during the winter months. Also, Lincoln is the location for a proposed open-pit gold mine and pre-mining impact data is needed in the area.

30-049-XXXX	**Rossiter School Helena/Lewis & Clark**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P**

The Helena Valley area is an area proposed for PM_{10} monitoring. Lewis and Clark County will install and operate the site. The proposed site is in an area of the Helena Valley which is experiencing rapid population growth.

30-049-0701	**Kleffner Road East Helena/Lewis & Clark**	**SO_2**	**74-96**	**SPM**	**Neigh.**	**H,S**

This site is operated by ASARCO and is part of their network around their primary lead smelter. EPA approved this site as a "SLAMS equivalent"

special purpose monitor (SPM) in an undated letter (received 1-14-91). This site continues to operate.

30-049-0702	**Water Tank East Helena/Lewis & Clark**	**SO_2**	**74-96**	**SPM**	**Neigh.**	**H,S**

This site is operated by ASARCO and is part of their network around their primary lead smelter. EPA approved this site as a "SLAMS equivalent" special purpose monitor (SPM) in an undated letter (received 1-14-91). This site continues to operate.

30-049-0703	**Kennedy Park East Helena/Lewis & Clark**	**SO_2**	**74-96**	**SPM**	**Neigh.**	**H,S**

This site is operated by ASARCO and is part of their network around their primary lead smelter. EPA approved this site as a "SLAMS equivalent" special purpose monitor (SPM) in an undated letter (received 1-14-91). This site continues to operate.

30-049-0714	**Firehall**	**TSP**	**81-96**	**SLAMS**	**Neigh.**	**H,P,S**
	East Helena/Lewis & Clark	**Pb**	**81-96**	**SLAMS**	**Neigh.**	**H.P,S**

The Firehall site currently supports two samplers run at a frequency of 1-in-2. This site recorded Pb concentrations exceeding the NAAQS numerous times and is currently the maximum Pb concentration site in East Helena. The Prickly Pear site (30-049-0727), which is two blocks to the east, is the modeled high concentration Pb site (after all SIP control measures are implemented). In addition to the current Pb analysis other metals (Copper, Arsenic, Cadmium, Chromium, Nickel, and Zinc) are measured from filters collected at this site starting 7/1/95.

30-049-0719	**Hadfield**	**TSP**	**81-93**	**SLAMS**	**Neigh.**	**H,P,S**
	East Helena/Lewis &	**Pb**	**81-93**	**SLAMS**	**Neigh.**	**H,P,S**
	Clark	**PM_{10}**	**88-93**	**SLAMS**	**Neigh.**	**H,P**

The Hadfield site measured many exceedances of the Pb standard over the years, but data analysis revealed that the Firehall site recorded higher Pb concentrations. In a 2/10/93 letter to EPA, the Department requested shutdown of the Hadfield PM_{10} site. This request was approved in a 3/30/93 letter and the site was discontinued effective April 1, 1993. The site was terminated in June 1993 and moved to the current Prickly Pear site (30-049-0727).

30-049-0724	**Dartman Field**	**TSP**	**83-96**	**SLAMS**	**Neigh.**	**H,S**
	East Helena/Lewis &	**Pb**	**83-96**	**SLAMS**	**Neigh.**	**H,S**
	Clark					

This site has been operated as a TSP/Pb site since 1983. There have been some exceedances of the Pb standard at this site, but overall Pb concentrations are lower than those measured at sites in downtown East Helena. The site has operated on a 1-in-6 schedule since 4-1-91 and will continue to operate at that frequency.

30-049-0726	**Old Railroad**	**TSP**	**89-96**	**SLAMS**	**Neigh.**	**H,S**
	East Helena/Lewis &	**Pb**	**89-96**	**SLAMS**	**Neigh.**	**H,S**
	Clark					

This site is located to the east of the Asarco smelter. TSP and Pb monitoring began on 11-6-89. Because of an occasional high reading the Old Railroad site will continue to operate on a 1-in-6 sampling frequency.

30-049-0727	**Prickly Pear Creek**	**TSP**	**93-96**	**SLAMS**	**Neigh.**	**H,P,S**
	E. Helena/Lewis and	**Pb**	**93-96**	**SLAMS**	**Neigh.**	**H,P,S**
	Clark County					

This site is located at the modeled maximum Pb concentration which is directly north of the ASARCO smelter on the north side of Highway 12 next

to Prickly Pear Creek. The site has collocated samplers which have shown lower Pb concentrations than the Firehall site (30-049-0714).

30-053-XXXX **Remote area** **PM_{10}** **96** **SLAMS** **Urban** **B**
Remote NW MT/Lincoln

A proposed new site. This site is needed as a background site for northwestern Montana. A possible site location will be investigated in this area.

30-053-0012 **Lincoln Co. Courthouse** **PM_{10}** **85-95** **SLAMS** **Neigh.** **H,P**
Libby/Lincoln

The analysis of more than a years PM_{10} data revealed excellent agreement between the hivol PM_{10} samplers at this site and the TEOM PM_{10} data at the Annex site. As a result, PM_{10} sampling was discontinued at this site on 04/01/95. PM_{10} monitoring is being conducted with the TEOM PM_{10} continuous monitor at the Courthouse Annex site.

30-053-0018 **Courthouse Annex** **PM_{10}** **93-96** **SLAMS** **Neigh.** **H,P**
Libby/Lincoln

A continuous PM_{10} sampler (TEOM) replaced the nephelometer at this site in October 1993. The continuous data from this unit has been reported to AIRS since start-up. The TEOM is used for the local mandatory residential wood burning curtailment program. The TEOM is modem linked to the DEQ for maintenance and monitoring purposes. The Lincoln County Environmental Health Department performs minor maintenance.

30-053-0019 **Troy School** **PM_{10}** **91-95** **SLAMS** **Neigh.** **H,P**
Troy/Lincoln

This PM_{10} site was installed at the Troy School in September 1991. Concentrations were low over a three year sampling period. The Troy site was terminated on June 30, 1995.

30-063-XXXX	**Bonner industrial area** **Bonner/Missoula**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P,S**

A proposed new site. This site is needed because of poor ventilation, and emissions from the local plywood/sawmill plant.

30-063-XXXX	**Seeley Lake area** **Seeley Lake/Missoula**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P**

A proposed new site. This site is needed because of lack of a data base, poor ventilation, and emissions from residential wood combustion, dirty street, and projected rapid growth.

30-063-XXXX	**Lolo area** **Lolo/Missoula**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P**

A proposed new site. This site is needed because the previous data collected in Lolo was not at a maximum concentration site, and because of emissions from dirty streets and residential wood combustion, and poor ventilation.

30-063-XXXX	**Frenchtown area** **Frenchtown/Missoula**	**PM_{10}**	**96**	**SPM**	**Neigh.**	**P,S**

A proposed new site. This site is needed because of the lack of a data base, population growth, poor ventilation, and emissions from a nearby pulp mill.

30-063-0005	**Malfunction Junction** **Missoula/Missoula**	**CO**	**79-96**	**SLAMS**	**Neigh.**	**H,P,S**

The site was discontinued during the five summer months from April 1 through August 30 for 1990-1992. Continuous CO monitoring was reinstated in 1993 because eight consecutive quarters of data without a violation must be presented to show attainment for CO.

A CO saturation study was conducted in December 1992. The results demonstrated that the Malfunction Junction site is the maximum CO site in Missoula. The site will collect data continuously to support a future redesignation request.

30-063-0016	**Stone #2**	**PM_{10}**	**92-96**	**SPM**	**Neigh.**	**S**
	Missoula/Missoula					

This company PM_{10} sampler is operated jointly by Missoula County and Stone Container Corporation. PM_{10} sampling will continue in order to measure impacts from the Stone Container pulp mill.

30-063-0024	**Boyd Park**	**PM_{10}**	**84-96**	**SLAMS**	**Neigh.**	**H,P**
	Missoula/Missoula					

The Boyd Park PM_{10} site operates on a 1-in-6 schedule. The three SA 321-B samplers (one collocated) will continue to collect data at this site for TEOM data analysis and comparison purposes.

A continuous PM_{10} monitor (TEOM) was installed and began operation in October 1994.

30-063-0031	**Health Dept. Roof**	**PM_{10}**	**86-96**	**SLAMS**	**Neigh.**	**H,P**
	Missoula/Missoula					

PM_{10} sampling was initiated in September 1986. This site is in the downtown central business district and is considered a maximum concentration site for this part of Missoula. The site now operates on a 1-in-6 sampling schedule year around.

30-063-0034	**Stone #1A**	**PM_{10}**	**92-96**	**SPM**	**Neigh.**	**S**
	Missoula/Missoula	**NO_2**	**88-92**	**SPM**	**Neigh.**	**H,S**

The PM_{10} sampler is operated jointly by Missoula County and Stone Container Corporation.

NO_2 was being monitored by the Stone Container Corporation as a condition of a permit to burn petroleum coke in their lime kilns. Due to low ambient concentrations and because only one kiln was converted the monitoring was discontinued on June 1, 1992. The NO_2 monitoring will resume if additional kilns are converted to coke.

30-081-0001 **Courthouse** **PM_{10}** **86-87** **SLAMS** **Neigh.** **P**
Hamilton/Ravalli **94-96**

PM_{10} monitoring was conducted at this site in 1986 and 1987, however, the site was shutdown because the samplers were needed elsewhere. The Courthouse PM_{10} site was reopened in June 1994 as a result of local complaints and rapid population growth.

30-081-0002 **Highway 93/State** **PM_{10}** **94-96** **SLAMS** **Neigh.** **P,H**
Hamilton/Ravalli

This site is located at a higher concentration area than the Courthouse site. The site is situated immediately off of Main Street which is also the main arterial through town. Monitoring started July 31, 1994.

30-081-0003 **Stevensville Ranger Sta.** **PM_{10}** **94-96** **SPM** **Neigh.** **P**
Stevensville/Ravalli

The site was started in July 1994 and is maintained and operated by the USFS. The USFS-Bitterroot National Forest voluntarily developed this site for the purpose of monitoring prescribed burns and their impacts. The site supports one SA-1200 sampler and one TEOM sampler. The Department provides technical support, analyses the filters and audits the samplers. The site has reported data to AIRS since start-up.

30-081-0004 **West Fork Ranger Sta.** **PM_{10}** **94-96** **SPM** **Urban** **B**
Darby/Ravalli

The site was started in July 1994 and is maintained and operated by the

USFS. The site is located at the West Fork Ranger Station near Darby. The USFS-Bitterroot National Forest voluntarily developed this site for the purpose of monitoring prescribed burns and their impacts in the southern end of the Bitterroot Valley. The site supports one SA-1200 sampler. The Department provides technical support, processes the filters, and audits the samplers. The site has reported data to AIRS since start-up.

30-087-0700	**MPC #3**	**SO_2**	**82-96**	**SPM**	**Neigh.**	**H,P**
	Colstrip/Rosebud	**NO_2**	**82-96**	**SPM**	**Neigh.**	**H,S**
		PM_{10}	**89-96**	**SPM**	**Neigh.**	**H,P**

The site is operated by the Montana Power Company and is part of their network around their coal-fired power plants. This site is intended to monitor for PM_{10} in the Colstrip TSP secondary non-attainment area. The PM_{10} sampler was installed and began operation in December 1989. The sampling frequency is 1-in-3 all year.

30-087-0701	**MPC #1**	**PM_{10}**	**92-96**	**SPM**	**Neigh.**	**H,S**
	Colstrip/Rosebud	**SO_2**	**81-96**	**SPM**	**Neigh.**	**H,S**
		NO_2	**81-96**	**SPM**	**Neigh.**	**H,S**

The site is operated by the Montana Power Company and is part of their network around their coal-fired power plants. PM_{10} sampling began on July 2, 1992. The sampling frequency was reduced to 1-in-6 on 7/1/95.

30-087-0702	**MPC #2**	**PM_{10}**	**92-95**	**SPM**	**Neigh.**	**H,S**
	Colstrip/Rosebud	**SO_2**	**81-96**	**SPM**	**Neigh.**	**H,S**
		NO_2	**81-96**	**SPM**	**Neigh.**	**H,S**

The site is operated by the Montana Power Company and is part of their network around their coal-fired power plants. PM_{10} sampling began on July 2, 1992 and ended on 6/30/95.

30-089-0003 **Sanders Co. Courthouse** **PM_{10}** **85-96** **SLAMS** **Neigh.** **H,P**
Thompson Falls/Sanders

PM_{10} sampling began at this non-attainment site in 1985 and has continued since. The site currently supports three Sierra Anderson SA-321B samplers running on a 1-in-2 and 1-in-6 schedule during the 1st/4th quarters and 2nd/3rd quarters, respectively.

30-093-0005 **Greeley School** **PM_{10}** **85-96** **SLAMS** **Neigh.** **H,P,S**
Butte/Silver Bow

The nephelometer, used for the mandatory residential wood burning curtailment program, was replaced with a continuous PM_{10} monitor (TEOM) in August 1993 and the TEOM began reporting data to AIRS on 10/1/93.

Sampling at this site with the collocated SA-321B samplers is on a 1-in-6 schedule year around. The collocated sampler may be removed in FY97 and allocated to a site with higher concentrations.

30-111-XXXX **Worden/Huntley area** **Ozone** **98** **SPM** **Urban** **P,S**
Worden/Yellowstone

A proposed ozone site just east of Billings. This site would operate on a seasonal basis, June through September. The installation and operation of this site in contingent upon obtaining funding.

30-111-0016 **BLAQTC - Laurel** **SO_2** **87-96** **SPM** **Neigh.** **H,S**
Laurel/Yellowstone

This industry site has operated since December 1987. The Department formally documented the site using the network modification request forms (letter and forms dated 1-5-90). EPA approved the site on 5-14-90 as a "SLAMS equivalent" special purpose monitor (SPM).

30-111-0066	**Coburn Road Billings/Yellowstone**	**SO_2**	**81-96**	**SLAMS**	**Neigh.**	**H,8**

This State site has continuously operated since 1981. The Department formally documented the site using the network modification request forms (letter and forms dated 1-5-90). EPA approved Coburn Road as a SLAMS site on 5-14-90. The Department upgraded the meteorological sensor on 11-14-90. This involved erecting a 10 meter tower across the fence and away from the sampling trailer.

30-111-0078	**Diamond Parking**	**PM_{10}**	**92-94**	**SLAMS**	**Micro.**	**H,P**
	Billings/Yellowstone	**CO**	**92-94**	**SLAMS**	**Micro.**	**H,P**

The site was discontinued on April 8, 1994. The property owner canceled the site lease. A new site, Norwest (30-111-0081), was established a short distance from the Diamond Parking Lot site.

30-111-0079	**Mount Olive**	**CO**	**92-96**	**SLAMS**	**Micro.**	**H,P**
	Billings/Yellowstone	**SO_2**	**95-96**	**SPM**	**Micro.**	**P**
		PM_{10}	**94-96**	**SLAMS**	**Micro.**	**H,P**

The Yellowstone County Air Pollution Control conducted a CO saturation study in December 1991. As a result, the Department and YCAPC installed a CO monitoring site, Mount Olive, located on 24th Street West, just north of Central Avenue. It began operation in November 1992 and was approved by EPA in a letter dated February 5, 1993. Also, the YCAPC operates one Wedding PM_{10} hivol sampler at this site.

A consortium of Billings industries located SO_2 monitoring at this site for a special school project. The industries (monitoring consultant) and YCAPC share SO_2 monitoring responsibilities. Monitoring for SO_2 began December 1,1995.

The Department plans to remove the shelter and CO monitoring equipment by 5/1/97 in order to initiate CO monitoring in Butte.

30-111-0080	**Sacrifice Cliff** **Billings/Yellowstone**	**SO_2**	**93-96**	**SLAMS**	**Neigh.**	**H,S**

As a result of two dispersion modeling studies conducted in the Billings area in 1991 and 1992 the Department installed an SO_2 monitor at the modeled maximum SO_2 "hot-spot". The Sacrifice Cliff site was approved by EPA effective May 19, 1993 and started data collection at that time.

30-111-0081	**Norwest**	**CO**	**94-96**	**SLAMS**	**Micro.**	**H,P**
	Billings/Yellowstone	**PM_{10}**	**94-96**	**SLAMS**	**Micro.**	**H,P**

The Diamond Parking Lot site was moved to this location in April 1994. The Norwest site was approved by EPA and started data collection on April 25, 1994. The YCAPC operates one Wedding PM_{10} hivol sampler at this site.

A comparison of CO data at Norwest and Mount Olive sites revealed Norwest as the maximum CO concentration site in Billings.

30-111-1065	**BLAQTC - Lockwood Park**	**SO_2**	**87-96**	**SPM**	**Neigh.**	**H,P,S**
	Billings/Yellowstone	**PM_{10}**	**96**	**SPM**	**Neigh.**	**H,P**

This industry site has operated since December 1987. The site is located in the same area as the old Lockwood Park site (30-111-0065). The old site operated from 1981 until January 1987. EPA approved this site on 5/14/90. YCAPC PM_{10} monitoring started on 1/4/96 on a 1-in-6 schedule. The schedule will be changed to 1-in-3 in the fall of 1996.

30-111-2005	**BLAQTC - Brickyard Lane** **Billings/Yellowstone**	**SO_2**	**89-96**	**SPM**	**Neigh.**	**H,P,S**

This industry site has operated since 11/8/89. The Department formally documented the site using the network modification request forms (letter and forms dated 1-5-90). EPA approved the site on 5-14-90 as a "SLAMS equivalent" special purpose monitor (SPM).

30-111-2006	**BGI-South Johnson Lane Billings/Yellowstone**	**SO_2**	**93-96**	**SPM**	**Neigh.**	**H,P,S**

Dispersion modeling by BGI, required as part of the permitting process, indicated elevated SO_2 levels in the Lockwood area. The site is south of I-90 and east of the existing Lockwood Park site.

Data collection started on November 2, 1993, and EPA approved Johnson Lane as a "SLAMS equivalent" special purpose monitor (SPM) site on March 7, 1994. The Department is considering asking BGI to move this site further south on Johnson Lane, because the modeled "hotspot" for that area may have shifted due to changes with the SO_2 point sources.

30-111-2007	**BGI-Pine Hills School Billings/Yellowstone**	**SO_2**	**93-96**	**SPM**	**Neigh.**	**H,P,S**

Dispersion modeling by BGI, required as part of the permitting process, indicated elevated SO_2 levels in the Lockwood area. The Pine Hills site is east of the I-90/I-94 junction in the elevated terrain above the Pine Hill School.

Data collection started on November 2, 1993, and EPA approved Pine Hills as a "SLAMS equivalent" special purpose monitor (SPM) site on March 7, 1994.

30-111-2008	**Senior High School**	**SO_2**	**95-96**	**SPM**	**Neigh.**	**P**
	Billings/Yellowstone	**CO**	**95-96**	**SPM**	**Neigh.**	**P**

A consortium of Billings industries started this site as a special school project. Monitoring for CO began on 12/19/95 and SO_2 began on 12/26/95.

TABLE 2

MONTANA AMBIENT AIR MONITORING NETWORK (SHORT LIST)

AIRS Number	Site Name/Address City/County	Parm	Year of Record	Station Type	Spatial Scale	Monitoring Objective*
* H=high concentration, P=high population, S=source impact, B=background						
30-013-0009	Fire Station #1 Great Falls/Cascade	PM_{10}	88-96	SLAMS	Neigh.	H,P
30-013-1025	Skyway Conoco Great Falls/Cascade	CO	89-96	SLAMS	Micro.	H,P,S
30-017-XXXX[1]	Miles City urban area Miles City/Custer	PM_{10}	96	SPM	Neigh.	P
30-027-XXXX	Lewistown urban area Lewistown/Fergus	PM_{10}	96	SPM	Neigh.	P
30-029-XXXX	Central Flathead Valley Kalispell/Flathead	PM_{10}	96	SPM	Urban	B
30-029-XXXX	Bigfork area Bigfork/Flathead	PM_{10}	96	SPM	Neigh.	P
30-029-0003	Col. Falls Jr. High Columbia Falls/ Flathead	PM_{10}	85-96	SLAMS	Neigh.	H,P
30-029-0039	Markus Foods Whitefish/Flathead	PM_{10}	91-96	SLAMS	Neigh.	H,P
30-029-0043	Evergreen Fire Station Kalispell/Flathead	PM_{10}	94-96	SPM	Neigh.	H,P,S

[1] Proposed new sites are underlined.

30-029-1015	Universal Athletics Kalispell/Flathead	PM_{10}	85-96	SLAMS	Neigh.	H,P
30-029-0045	Idaho and Main St. Kalispell/Flathead	CO	95-96	SLAMS	Micro.	H,P
30-029-XXXX	Laser School Kalispell/Flathead	CO	96	SPM	Neigh.	H,P
30-031-0002	East Main City Bldg. Bozeman/Gallatin	PM_{10}	85-96	SLAMS	Neigh.	H,P
30-031-0008	Belgrade ConAgra Belgrade/Gallatin	PM_{10}	91-96	SLAMS	Neigh.	H,P
30-031-0012	Firehole West Yellowstone/Gallatin	PM_{10}	95-96	SPM	Neigh.	H,P
30-043-XXXX	Montana City Area Montana City/Jefferson	PM_{10}	96	SPM	Neigh.	P,S
30-043-0903	Microwave Montana City/Jefferson	SO_2	74-96	SPM	Neigh.	H,S
30-043-0908	Ash Grove Siding Montana City/Jefferson	SO_2	89-96	SPM	Neigh.	S
30-043-0909	Top of Microwave Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S
30-043-0910	McClellan Creek Road#3 Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S
30-043-0911	McClellan Creek Road#4 Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S
30-043-0912	McClellan Creek Road#5 Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S

30-043-0913	McClellan Creek Road#6 Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S
30-043-0914	McClellan Creek Road#7 Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S
30-043-0915	McClellan Creek Road#8 Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S
30-043-0916	McClellan Creek Road#9 Montana City/Jefferson	SO_2	93-96	SPM	Neigh.	H,S
30-049-0001	Cogswell Building Helena/Lewis & Clark	PM_{10}	85-96	SLAMS	Neigh.	P
30-049-0018	Lincoln School Helena/Lewis & Clark	PM_{10}	91-96	SLAMS	Neigh.	H,P
30-049-XXXX	Lincoln area Lincoln/Lewis & Clark	PM_{10}	96	SPM	Neigh.	P
30-049-XXXX	Rossiter School Helena/Lewis & Clark	PM_{10}	96	SPM	Neigh.	P
30-049-0701	Kleffner Road East Helena/Lewis & Clark	SO_2	74-96	SPM	Neigh.	H,S
30-049-0702	Water Tank East Helena/Lewis & Clark	SO_2	74-96	SPM	Neigh.	H,S
30-049-0703	Kennedy Park East Helena/Lewis & Clark	SO_2	74-96	SPM	Neigh.	H,S

30-049-0714	Firehall East Helena/Lewis & Clark	TSP Pb	81-96 81-96	SLAMS SLAMS	Neigh. Micro.	H,P,S H,P,S
30-049-0724	Dartman Field East Helena/Lewis & Clark	TSP Pb	83-96 83-96	SLAMS SLAMS	Neigh. Neigh.	H,S H,S
30-049-0726	Old Railroad East Helena/Lewis & Clark	TSP Pb	89-96 89-96	SLAMS SLAMS	Neigh. Neigh.	H,S H,S
30-049-0727	Prickly Pear Creek East Helena/Lewis & Clark	TSP Pb	93-96 93-96	SLAMS SLAMS	Neigh. Neigh.	H,P,S H,P,S
30-053-XXXX	Remote area NW Mont./Lincoln	PM_{10}	96	SPM	Urban	B
30-053-0018	Courthouse Annex Libby/Lincoln	PM_{10}	93-96	SLAMS	Neigh.	H,P
30-063-XXXX	Bonner industrial area Bonner/Missoula	PM_{10}	96	SPM	Neigh.	P,S
30-063-XXXX	Seeley Lake area Seeley Lake/Missoula	PM_{10}	96	SPM	Neigh.	P
30-063-XXXX	Lolo area Lolo/Missoula	PM_{10}	96	SPM	Neigh.	P
30-063-XXXX	Frenchtown area Frenchtown/Missoula	PM_{10}	96	SPM	Neigh.	P,S
30-063-0005	Malfunction Junction Missoula/Missoula	CO	79-96	SLAMS	Neigh.	H,P,S
30-063-0016	Stone #2 Missoula/Missoula	PM_{10}	92-96	SPM	Neigh.	S

30-063-0024	Boyd Park Missoula/Missoula	PM_{10}	84-96	SLAMS	Neigh.	H,P
30-063-0031	Health Dept. Roof Missoula/Missoula	PM_{10}	86-96	SLAMS	Neigh.	H,P
30-063-0034	Stone #1A Missoula/Missoula	PM_{10} NO_2	92-96 88-92	SPM SPM	Neigh. Neigh.	S H,S
30-081-0001	Courthouse Hamilton/Ravalli	PM_{10}	86-87 94-96	SLAMS	Neigh.	P
30-081-0002	Highway 93/State Hamilton/Ravalli	PM_{10}	94-96	SLAMS	Neigh.	P,H
30-081-0003	Stevensville Ranger Sta. Stevensville/Ravalli	PM_{10}	94-96	SPM	Neigh.	P
30-081-0004	West Fork Ranger Sta. Darby/Ravalli	PM_{10}	94-96	SPM	Urban	B
30-087-0700	MPC #3 Colstrip/Rosebud	SO_2 NO_2 PM_{10}	82-96 82-96 89-96	SPM SPM SPM	Neigh. Neigh. Neigh.	H,P H,S H,P
30-087-0701	MPC #1 Colstrip/Rosebud	SO_2 NO_2 PM_{10}	81-96 81-96 92-96	SPM SPM SPM	Neigh. Neigh. Neigh.	H,S H,S H,S
30-087-0702	MPC #2 Colstrip/Rosebud	SO_2 NO_2 PM_{10}	81-96 81-96 92-96	SPM SPM SPM	Neigh. Neigh. Neigh.	H,S H,S H,S
30-089-0003	Sanders Co. Courthouse Thompson Falls/Sanders	PM_{10}	85-96	SLAMS	Neigh.	H,P
30-093-0005	Greeley School Butte/Silver Bow	PM_{10}	85-96	SLAMS	Neigh.	H,P,S

30-111-XXXX	Worden/Huntley area Worden/Yellowstone	Ozone	98	SPM	Urban	P,S
30-111-0016	BLAQTC - Laurel Laurel/Yellowstone	SO_2	87-96	SPM	Neigh.	H,S
30-111-0066	Coburn Road Billings/Yellowstone	SO_2	81-96	SLAMS	Neigh.	H,S
30-111-0079	Mount Olive Billings/Yellowstone	CO SO_2 PM_{10}	92-96 95-96 94-96	SLAMS SPM SLAMS	Micro. Micro. Micro.	H,P P H,P
30-111-0080	Sacrifice Cliff Billings/Yellowstone	SO_2	93-96	SLAMS	Neigh.	H,S
30-111-0081	Norwest Billings/Yellowstone	CO PM_{10}	94-96 94-96	SLAMS SLAMS	Micro. Micro.	H,P H,P
30-111-1065	BLAQTC - Lockwood Park Billings/Yellowstone	SO_2 PM_{10}	87-96 96	SPM SPM	Neigh. Neigh.	H,P,S P,S
30-111-2005	BLAQTC - Brickyard Lane Billings/Yellowstone	SO_2	89-96	SPM	Neigh.	H,P,S
30-111-2006	BGI-South Johnson Lane Billings/Yellowstone	SO_2	93-96	SPM	Neigh.	H,P,S
30-111-2007	BGI-Pine Hills School Billings/Yellowstone	SO_2	93-96	SPM	Neigh.	H,P,S
30-111-2008	Senior High School Billings/Yellowstone	SO_2 CO	95-96 95-96	SPM SPM	Neigh. Neigh.	P P,S

TABLE 3

MONTANA EQUIPMENT PURCHASES FOR FY96

Quantity	Item Description	Each	Total
1	Gas Regulator (CO)	$ 200	$ 200
3	API 300 CO Analyzers	$ 6,998	$20,994
2	Vaccuum cleaners (road dust sampling)	90	180
2	Auto chart take-up options for Soltec 1241	425	850
	Total of Equipment Purchases:		**$22,224**

TABLE 4

MONTANA PLANNED PURCHASES FOR FY97

Quantity	Item Description	Each (est)	Total (est)
2	EKTO Air Monitoring Shelter	$10,000	$20,000
3	API 300 CO Analyzers (two replacements)	$ 8,000	$24,000
1	BIOS DryCal flow measuring device	2,000	2,000
2	Soltec 1241 chart recorders	1,500	3,000
	Total of Equipment Purchases:		**$49,000**

TABLE 5

MONITORING EQUIPMENT REPLACEMENT AND NEW PURCHASE PLAN

30-013-0009
FIRE STATION
GREAT FALLS/CASCADE

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	2	~10/84	GOOD	$8000	----	----	----	

30-013-1025
SKYWAY CONOCO
GREAT FALLS/CASCADE

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	CO	300	ADVANCED POLLUTION INSTRUMENTATION (API)	1	7/95	NEW	$8000	----	----	----	
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	6/90	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	3000	EESI	1	3/92	GOOD	$10000	----	----	----	
MT	SHELTER		EKTO	1	9/92	GOOD	$10000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	
COUNTY	FLOW CALIBRATOR	DRYCAL	BIOS	1	4/95	GOOD	$2000	----	----	----	

30-017-XXXX
MILES CITY
MILES CITY/CUSTER

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	1200	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-027-XXXX
LEWISTOWN
LEWISTOWN/FERGUS

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	1200	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-029-XXXX
CENTRAL FLATHEAD VALLEY
KALISPELL/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	1200	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-029-XXXX
BIGFORK
BIGFORK/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	1200	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-029-0003
COLUMBIA FALLS JUNIOR HIGH
COLUMBIA FALLS/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	PM-10	----	WEDDING & ASSOC.	3	2/87 3/88 7/89	GOOD	$12000	----	----	----	No current need to replace.

30-029-0039
MARKUS FOODS
WHITEFISH/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	2	10/84	GOOD	$8000	----	----	----	No current need to replace.
MT	SHELTER	----	EKTO	1	7/95	NEW	$4500	----	----	----	
MT	PM-10	TEOM	RUPPRECHT & PATASHNICK (R&P)	1	7/95	NEW	$17000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	

30-029-0043
EVERGREEN FIRE STATION
KALISPELL/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	PM-10	1200	SIERRA ANDERSON	2	10/84	GOOD	$8000	----	----	----	No current need to replace.

30-029-0045
IDAHO AND MAIN
KALISPELL/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	CO	3003	DASIBI	1	5/90	GOOD	$8000	$8000	----	----	Replace with API 300 analyzer.
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	?	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	3000	EESI	1	?	GOOD	$10000	----	----	----	
MT	SHELTER		EKTO	1	7/95	NEW	$10000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	
MT	FLOW CALIBRATOR	DRYCAL	BIOS	1	4/94	GOOD	#2000				

30-029-XXXX
LASER SCHOOL
KALISPELL/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	CO	3003	DASIBI	1	5/90	GOOD	$8000	$8000	----	----	Replace with API 300 analyzer.
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	?	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	3000	EESI	1	?	GOOD	$10000	----	----	----	
MT	SHELTER		EKTO	1	7/95	NEW	$10000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	

30-029-1015
UNIVERSAL ATHLETICS
KALISPELL/FLATHEAD

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	1	10/84	GOOD	$4000	----	----	----	No current need to replace.
MT	SHELTER	----	EKTO	1	6/95	NEW	$4500	----	----	----	
MT	PM-10	TEOM	RUPPRECHT & PATASHNICK (R&P)	1	7/95	NEW	$17000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	

30-031-0002
EAST MAIN CITY BUILDING
BOZEMAN/GALLATIN

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	2	~10/84	GOOD	$8000	----	----	----	No current need to replace.

30-031-0008
BELGRADE CONAGRA
BELGRADE/GALLATIN

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	PM-10	1200	SIERRA ANDERSON	2	10/90	GOOD	$8000	----	----	----	No current need to replace.

30-031-0012
FIREHOLE
WEST YELLOWSTONE/GALLATIN

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	PM-10	1200	SIERRA ANDERSON	2	10/90	GOOD	$8000	----	----	----	No current need to replace.

30-043-XXXX
MONTANA CITY
MONTANA CITY/JEFFERSON

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	321B	SIERRA ANDERSON	1	----	GOOD	$4000	----	----		Sampler from storage or other site.

30-049-0001
COGSWELL BUILDING
HELENA/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	1	~10/84	GOOD	$4000	----	----	----	No current need to replace.

30-049-0018
LINCOLN SCHOOL
HELENA/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
COUNTY	PM-10	321B	SIERRA ANDERSON	2	~6/88	GOOD	$8000	----	----	----	No current need to replace.
MT	SHELTER	----	EKTO	1	7/95	NEW	$10000	----	----	----	New shelter installed August 1996.
MT	PM-10	TEOM	RUPPRECHT & PATASHNICK (R&P)	1	6/93	GOOD	$17000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500				
MT	FLOW CALIBRATOR	DRYCAL	BIOS	1	4/94	GOOD	$2000				

30-049-XXXX
LINCOLN
LINCOLN/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	321B	SIERRA ANDERSON	1	?	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-049-XXXX
ROSSITER SCHOOL
HELENA/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
COUNTY	PM-10	321B	SIERRA ANDERSON	1	~6/88	GOOD	$4000	----	----	----	Sampler moved from lincoln School.

30-049-0714
FIREHALL
E. HELENA/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	TSP		GENERAL METAL WORKS	2	~6/75	FAIR	$8000	----	----	----	

30-049-0724
DARTMAN FIELD
E. HELENA/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	TSP		GENERAL METAL WORKS	2	~6/75	FAIR	$8000	----	----	----	

30-049-0726
OLD RAILROAD
E. HELENA/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	TSP		GENERAL METAL WORKS	2	~6/75	FAIR	$8000	----	----	----	

30-049-0727
PRICKLY PEAR
E. HELENA/LEWIS AND CLARK

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	TSP		GENERAL METAL WORKS	2	~6/75	FAIR	$8000	----	----	----	

30-053-0018
COURTHOUSE ANNEX
LIBBY/LINCOLN

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	1	?	GOOD	$4000	----	----	----	No current need to replace.
MT	PM-10	TEOM	RUPPRECHT & PATASHNICK (R&P)	1	6/93	GOOD	$17000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	
MT	FLOW CALIBRATOR	DRYCAL	BIOS	1	4/94	GOOD	$2000				

30-053-XXXX
REMOTE AREA
NW MONTANA/LINCOLN

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	321B	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-063-XXXX
BONNER
BONNER/MISSOULA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	321B	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-063-XXXX
SEELEY LAKE
SEELEY LAKE/MISSOULA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	321B	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-063-XXXX
LOLO
LOLO/MISSOULA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	321B	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-063-XXXX
FRENCHTOWN
FRENCHTOWN/MISSOULA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT or EPA	PM-10	321B	SIERRA ANDERSON	1	----	GOOD	$4000	----	----	----	Sampler from storage or other site.

30-063-0005
MALFUNCTION JUNCTION
MISSOULA/MISSOULA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	CO	300	API	1	7/95	NEW	$8000	----	----	----	
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	6/90	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	700	API	1	6/95	NEW	$10000	----	----	----	
COUNTY	SHELTER		RAPS/RAM	1	≈6/75	FAIR	$10000	----	----	----	No current need to replace.
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	

30-063-0024
BOYD PARK
MISSOULA/MISSOULA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
COUNTY	PM-10	321B	SIERRA ANDERSON	3	≈10/84	GOOD	$12000	----	----	----	No current need to replace.
MT	PM-10	TEOM	R & P	1	10/94	GOOD	$17000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	
COUNTY	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	6/90	GOOD	$3500	----	----	----	
COUNTY	SHELTER		RAPS/RAM	1	≈6/75	FAIR	$10000	----	----	----	No current need to replace.
MT	FLOW CALIBRATOR	DRYCAL	BIOS	1	4/94	GOOD	$2000	----	----	----	

30-063-0031
ENVIRONMENTAL HEALTH DEPARTMENT
MISSOULA/MISSOULA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	2	≈10/84	GOOD	$8000	----	----	----	No current need to replace.

30-081-0001
COURTHOUSE
HAMILTON/RAVALLI

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	PM-10	321B	SIERRA ANDERSON	1	?	FAIR	$4000	----	----	----	No current need to replace.

30-081-0002
HIGHWAY 93/STATE
HAMILTON/RAVALLI

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	PM-10	321B	SIERRA ANDERSON	1	?	FAIR	$4000	----	----	----	No current need to replace.

30-089-0003
SANDERS COUNTY COURTHOUSE
THOMPSON FALLS/SANDERS

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	3	≈10/84	GOOD	$12000	----	----	----	No current need to replace.

30-093-0005
GREELEY SCHOOL
BUTTE/SILVER BOWA

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
EPA	PM-10	321B	SIERRA ANDERSON	2	≈10/84	GOOD	$8000	----	----	----	No current need to replace.
MT	PM-10	TEOM	R & P	1	6/93	GOOD	$17000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	
EPA	SHELTER		RAPS/RAM	1	≈6/75	FAIR	$10000	----	----	----	No current need to replace.
MT	FLOW CALIBRATOR	DRYCAL	BIOS	1	4/94	GOOD	$2000	----	----	----	

30-111-0066
COBURN ROAD
BILLINGS/YELLOWSTONE

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	SO2	100	API	1	3/91	GOOD	$10000	----	----	----	
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	8/89	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	3000	EESI	1	3/91	GOOD	$10000	----	----	----	
EPA	SHELTER		RAPS/RAM	1	≈6/75	FAIR	$10000	----	----	----	No current need to replace.
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	

30-111-0081
NORWEST
BILLINGS/YELLOWSTONE

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	CO	300	API	1	7/95	NEW	$8000	----	----	----	
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	6/90	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	700	API	1	6/95	NEW	$10000	----	----	----	
MT	SHELTER		EKTO	1	9/92	GOOD	$10000	----	----	----	No current need to replace.
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	
COUNTY	PM-10	----	WEDDING & ASSOC.	1	7/88	GOOD	$4000	----	----	----	No current need to replace.
COUNTY	FLOW CALIBRATOR	DRYCAL	BIOS	1	7/95	GOOD	$2000	----	----	----	

30-111-0079
MOUNT OLIVE
BILLINGS/YELLOWSTONE

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	CO	300	API	1	7/95	NEW	$8000	----	----	----	
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	6/90	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	700	API	1	6/95	NEW	$10000	----	----	----	
MT	SHELTER		EKTO	1	9/92	GOOD	$10000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	
COUNTY	PM-10	----	WEDDING & ASSOC.	1	7/88	GOOD	$4000	----	----	----	No current need to replace.

30-111-0080
SACRIFICE CLIFF
BILLINGS/YELLOWSTONE

OWNERSHIP	EQUIPMENT TYPE	MODEL	MANUFACTURE	# OF UNITS	ACQ.DATE	CONDITION	REP. COST	PROPOSED REPLACEMENT COSTS FY97	FY98	FY99	**********COMMENTS**********
MT	SO2	100	API	1	3/91	GOOD	$10000	----	----	----	
MT	DATA ACQUISITION SYSTEM	ICIS3	WESTERN TELECOMPUTING CORPORATION (WTC)	1	6/92	GOOD	$3500	----	----	----	
MT	DILUTION SYSTEM	3000	EESI	1	3/91	GOOD	$10000	----	----	----	
MT	SHELTER		EKTO	1	9/92	GOOD	$10000	----	----	----	
MT	CHART RECORDER	1241	SOLTEC	1	9/92	GOOD	$1500	----	----	----	

TABLE 6

MONTANA NETWORK MODIFICATION GOALS FOR FY96

Rank	AIRS Number	Site Name/Address City/County	Parm	********** Comments **********
1.	30-053-0012	Lincoln Co. Courthouse Libby/Lincoln	PM_{10}	Remove hivol PM_{10} samplers by 8/1.
	STATUS: Accomplished 8/9/95.			
2.	30-053-0018	Lincoln Co. Annex Libby/Lincoln	PM_{10}	Install hivol PM_{10} on Annex roof as TEOM backup. Designate TEOM as compliance monitor.
	STATUS: Accomplished 8/9/95.			
3.	30-053-0019	Troy School Troy/Lincoln	PM_{10}	Remove site by 8/1.
	STATUS: Accomplished 8/9/95.			
4.	30-049-0018	Lincoln School Helena/Lewis & Clark	PM_{10}	Remove one hivol PM_{10} sampler by 9/1, retain one hivol as TEOM backup, designate TEOM as compliance monitor.
	STATUS: Accomplished 8/3/95.			
5.	30-093-0005	Greeley School Butte/Silver Bow	PM_{10}	Remove three hivol PM_{10} samplers by 9/1 (not done), retain one hivol as TEOM backup, designate TEOM as compliance monitor.
	STATUS: Accomplished 8/3/95.			
6.	30-029-1018	East Maintenance Bldg. Kalispell/Flathead	PM_{10}	Remove hivol & TEOM PM_{10} samplers; move TEOM to Kalispell UA site to replace PM_{10} hivols.
	STATUS: Accomplished 8/10/95.			
7.	30-029-1015	Universal Athletics Kalispell/Flathead	PM_{10}	Remove two hivol PM_{10} samplers by 9/1, retain one hivol as TEOM backup, move TEOM to UA from East Maintenance Bldg., designate TEOM as compliance monitor.
	STATUS: Accomplished 7/1/95.			

8.	30-029-0043	Evergreen Kalispell/Flathead	PM_{10}	Add one PM_{10} hivol sampler by 9/1 for increased sampling frequency.
	STATUS: Accomplished 8/10/95.			
9.	30-063-0024	Boyd Park Missoula/Missoula	PM_{10}	Remove hivol PM_{10} samplers by 7/1/96 (not done), retain one hivol as TEOM backup, designate TEOM as compliance monitor.
	STATUS: Accomplished 8/3/95.			
10.	30-029-0039	Markus Foods Whitefish/Flathead	PM_{10}	Remove hivol PM_{10} samplers by 9/1,(not done) retain one as TEOM backup, install TEOM PM_{10} sampler with modem access, and designate TEOM as compliance monitor.
	STATUS: Accomplished 8/8/95.			
11.	30-029-XXXX	Central Flathead Valley Kalispell/Flathead	PM_{10}	Install hivol PM_{10} sampler(s) in central Flathead Valley (installation dependant on cooperation with county program).
	STATUS: Site not installed, pending available resources.			
12.	30-029-0045	Idaho and Main St. Kalispell/Flathead	CO	Install continuous CO monitoring site in area(s) identified by the saturation study by 10/1 (installation dependant on cooperation with county program).
	STATUS: Site installed 10/31/95.			
13.	30-111-2006	South Johnson Lane Billings/Yellowstone	SO_2	Relocate industry SO_2 site further south on Johnson Lane, to modeled hotspot for that area (conditional upon YELP's cooperation).
	STATUS: Site not moved, rescheduled FY97.			
14.	30-049-0714	Firehall E. Helena/Lewis & Clark	TSP	Perform additional analyses for heavy metals, Arsenic, Cadmium, Nickel, Chromium, and Zinc, on Firehall "1-in-2" filters. Start analyses 7/1.
	STATUS: Accomplished 7/1/95.			
15.	30-111-XXXX	East of Billings Worden/Yellowstone	Ozone	Install Ozone monitoring site downwind of Billings, near Huntley or Worden. Seasonal operation: June thru September; start 6/1/96.
	STATUS: Site not installed, pending available resources.			

16. 30-049-XXXX Lincoln area PM_{10} Install hivol PM_{10} sampler(s) by 9/1.
Lincoln/Lewis & Clark
STATUS: Site not installed, pending available resources.

17. 30-027-XXXX Lewistown area PM_{10} Install hivol PM_{10} sampler(s) by 10/1.
Lewistown/Fergus
STATUS: Site not installed, pending available resources.

18. 30-029-XXXX Bigfork area PM_{10} Install hivol PM_{10} sampler(s) by 10/1.
Bigfork/Flathead
STATUS: Site not installed, pending available resources.

19. 30-063-XXXX Bonner area PM_{10} Install hivol PM_{10} sampler(s) by 11/1.
Bonner/Missoula
STATUS: Site not installed, pending available resources.

20. 30-063-XXXX Seeley Lake area PM_{10} Install hivol PM_{10} sampler(s) by 11/1.
Seeley Lake/Missoula
STATUS: Site not installed, pending available resources.

21. 30-001-XXXX Dillon area PM_{10} Install hivol PM_{10} sampler(s) by 6/1/96.
Dillon/Beaverhead
STATUS: Site not installed.

22. 30-043-XXXX Montana City School PM_{10} Install hivol PM_{10} sampler(s) by 9/1.
Montana City/Jefferson
STATUS: Site not installed, pending available resources.

23. 30-111-1065 Lockwood Park PM_{10} Add PM_{10} sampler to Lockwood SO_2 site by 10/1.
Billings/Yellowstone
STATUS: Accomplished 1/4/96.

24. 30-031-0009 West Yellowstone area PM_{10} Install hivol PM_{10} sampler(s) by 10/1.
West Yellowstone/Gallatin
STATUS: Accomplished 11/15/95.

25. 30-093-XXXX Butte CO Two week CO saturation study before Xmas 1995 with miniVOL samplers.
Butte/Silver Bow
STATUS: Accomplished 12/24/95.

26.	30-029-XXXX	Columbia Falls C. Falls/Flathead	PM_{10}	Two week saturation study in spring of 1996 with miniVOL samplers at several locations in Columbia Falls.
	STATUS: Not accomplished.			
27.	30-031-XXXX	Big Sky resort Big Sky/Gallatin	PM_{10}	Install hivol PM_{10} sampler(s) by 6/1/96.
	STATUS: Site not installed.			
28.	30-053-XXXX	Remote NW Montana Remote area/Lincoln	PM_{10}	Install hivol PM_{10} sampler(s) in remote NW Montana for background site by 6/1/96.
	STATUS: Site not installed, pending available resources.			
29.	30-007-XXXX	Townsend area Townsend/Broadwater	PM_{10}	Install hivol PM_{10} sampler(s) by 6/1/96.
	STATUS: Site not installed.			
30.	30-063-XXXX	Frenchtown area Frenchtown/Missoula	PM_{10}	Install hivol PM_{10} sampler(s) by 6/1/96.
	STATUS: Site not installed, pending available resources.			
31.	30-087-XXXX	Ashland area Ashland/Rosebud	PM_{10}	Install hivol PM_{10} sampler(s) by 6/1/96.
	STATUS: Site not installed.			
32.	30-063-XXXX	Lolo area Lolo/Missoula	PM_{10}	Install hivol PM_{10} sampler(s) by 6/1/96.
	STATUS: Site not installed, pending available resources.			
33.	30-061-XXXX	Superior area Superior/Mineral	PM_{10}	Install hivol PM_{10} sampler(s) by 6/1/96.
	STATUS: Site not installed.			

TABLE 7

MONTANA NETWORK MODIFICATION GOALS FOR FY97

Rank	AIRS Number	Site Name/Address City/County	Parm	********** Comments **********
1.	30-029-XXXX	Laser School Kalispell/Flathead	CO	Install a second Kalispell - CO site, at *neighborhood scale,* within a few blocks of the Idaho/Main site, begin operating by October 1, 1996.
2.	30-013-0009	Fire Station Great Falls/Cascade	PM10	Reduce the sampling frequency at the Great Falls Fire Station PM10 site from 1-in-3 to 1-in-6 starting on July 1, 1996.
3.	30-029-0039	Markus Foods Kalispell/Flathead	PM10	Reduce the sampling frequency at the Whitefish Markus Foods PM10 site, during the fourth and first quarters, from 1-in-2 to 1-in-3 starting on October 1, 1996.
4.	30-029-1015	Universal Athletics Kalispell/Flathead	PM10	Reduce the sampling frequency at the Kalispell UA PM10 site, during the fourth and first quarters, from 1-in-2 to 1-in-3 starting on October 1, 1996.
5.	30-029-0003	Junior High Columbia Falls/Flathead	PM10	Reduce the sampling frequency at the Columbia Falls Junior High PM10 site, during the fourth and first quarters, from 1-in-2 to 1-in-3 starting on October 1, 1996.
6.	30-043-XXXX	Asarco Network E. Helena/Jefferson	SO2	Review the ASARCO SO2 data and by November 1, 1996 determine the highest concentration sites. Reduce the size of the ASARCO SO2 network to 2-5 sites by January 1, 1997.

TABLE 7

MONTANA NETWORK MODIFICATION GOALS FOR FY97

Rank	AIRS Number	Site Name/Address City/County	Parm	********** Comments **********
7.	30-049-0018	Lincoln School Helena/Lewis and Clark	PM10	Replace the dilapidated shelter at the Helena Lincoln School TEOM site with a new EKTO shelter by September 4, 1996.
8.	30-049-XXXX	Rossiter School Helena/Lewis and Clark	PM10	Lewis & Clark County will install and operate a hivol PM10 site at the Rossiter School or at a similar location in the Helena Valley, by October 1, 1996.
9.	----------	Cutbank/Glacier	Dustfall	Stop all dustfall sampling by the first week of October 1996.
10.	30-111-0079	Mount Olive Billings/Yellowstone	CO	Remove the Billings Mount Olive CO site by May 1, 1997.
11.	30-093-XXXX	Harrison Avenue Butte/Silver Bow	CO	Install a CO site in Butte by July 1, 1997 using the shelter and equipment from the Mount Olive site. Based on the results of the CO saturation study, the Butte site will be installed near the intersection of Harrison Ave. and Amherst St.
12.	30-063-0024	Boyd Park (others) Missoula/Missoula	nitrates sulfates	Analyze hivol PM10 filters from the Missoula - Boyd Park, Billings - Lockwood Park and Helena - Cogswell Building sites for nitrates and sulfates, starting on September 1, 1996.

TABLE 7

MONTANA NETWORK MODIFICATION GOALS FOR FY97

Rank	AIRS Number	Site Name/Address City/County	Parm	********** Comments **********
13.	30-063-XXXX	Lolo Lolo/Missoula	PM10	Install a hivol PM10 site in downtown Lolo; start sampling on an 1-in-6 frequency by January 1, 1997.
14.	30-111-2006	Johnson Lane Billings/Yellowstone	SO2	Relocate the Johnson Lane S02 site to a higher elevation location, further south along Johnson Lane.
15.	30-049-XXXX	Lincoln Lincoln/Lewis and Clark	PM10	Install a hivol PM10 site in downtown Lincoln with Lewis & Clark County only responsible for maintenance and calibrations. Collect samples on a 1-in-6 frequency starting on October 1, 1996.
16.	30-111-0066	Coburn Road Billings/Yellowstone	SO2	Operate a sulfation plate network along the ridge top near the Billings Coburn Road S02 site; analyze the plates every 14-15 days, starting October 1, 1996.
17.	30-017-XXXX	Miles City Miles City/Custer	PM10	Install a hivol PM10 site in downtown Miles City by January 1, 1997.
18.	30-111-2005	Brickyard Lane Billings/Yellowstone	SO2	Relocate the Brickyard Lane S02 site to another location, preferably a computer modeled *hotspot* in Billings Heights.
19.	30-049-XXXX	Helena Helena/Lewis and Clark	PM10	Lewis & Clark County will conduct a PM10 saturation study in Helena area during the winter of 1996-97, preferablely during the January to March period.

TABLE 7

MONTANA NETWORK MODIFICATION GOALS FOR FY97

Rank	AIRS Number	Site Name/Address City/County	Parm	********** Comments **********
20.	30-029-XXXX	Flathead Valley Kalispell/Flathead	PM10	Install a hivol PM10 background site in the central part of the Flathead Valley by January 1, 1997 for data comparisons with the Whitefish, Col.Falls and Kalispell sites.
21.	30-043-XXXX	Montana City Mt City/Jefferson	PM10	Install a hivol PM10 site at a location in northern Jefferson County, possibly at the MT City school, and start sampling on a 1-in-6 schedule by January 1, 1997.
22.	30-029-1015	Universal Athletics Kalispell/Flathead	PM10	Assist with the MDOT Road Dust CMB study at the Kalispell - UA PM10 site. Obtain quartz & Teflon filters and install extra PM10 samplers by December 1, 1996.
23.	30-093-0005	Greeley School Butte/Silver Bow	PM10	Transfer the collocated PM10 sampler from the Butte-Greeley School site to a site with higher concentrations by January 1, 1997.
24.	30-053-XXXX	Remote NW Montana Libby/Lincoln	PM10	Install a remote, background PM10 site in northwestern MT by May 1, 1997.
25.	30-027-XXXX	Lewistown Lewistown/Fergus	PM10	Install a hivol PM10 site in downtown Lewistown by May 1, 1997.
26.	30-063-XXXX	Missoula Missoula/Missoula	air toxics	Missoula County will design an air toxics screening study by October 1, 1996. Missoula will collect samples 12/96 to 3/97 and 6/97 to 8/97.

TABLE 7

MONTANA NETWORK MODIFICATION GOALS FOR FY97

Rank	AIRS Number	Site Name/Address City/County	Parm	********** Comments **********
27.	30-063-XXXX	Bonner Bonner/Missoula	PM10	Install a hivol PM10 site in Bonner by June 1, 1997.
28.	30-063-XXXX	Seeley Lake Seeley Lake/Missoula	PM10	Install a hivol PM10 site in Seeley Lake by June 1, 1997.
29.	30-063-XXXX	Frenchtown Frenchtown/Missoula	PM10	Install a hivol PM10 site in Frenchtown by June 1, 1997.
30.	30-029-XXXX	Bigfork Bigfork/Flathead	PM10	Install a hivol PM10 site in Bigfork by June 1, 1997.

EMISSION INVENTORY DATA FOR 1995

This appendix presents emission inventory data for 1995 from the major point sources throughout Montana. The information is sorted by county. The Department uses point, area and mobile source emission inventory data to assess the adequacy of the air monitoring network and determine if additional sites are needed.

APPENDIX B: EMISSION INVENTORY DATA FOR 1995

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 001 BEAVERHEAD CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	STOLTZE, F H		2421	142	12	363.7	4999.4	8	90	12.8	32.5	0.0	0.5	2.7
0001	BOX 389													
	DILLON	59725												
00002	BARRETTS MINERALS INC.		3295	142	12	363.2	4998.8	52	95	17.3	6.6	0.4	23.3	0.8
0002	8625 MT HWY 91 SOUTH													
	DILLON	59725												
00004	CENTENNIAL FOODS, INC.		2043	142	12	385.3	5019.0	6	94	0.1	0.0	0.0	0.4	0.0
0004	1575 EAST BENCH ROAD, HWY. 41													
	DILLON	59725												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									30.2	39.1	0.4	24.2	3.5

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 003 BIG HORN CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00002	WESTMORELAND RESOURCES	1211	140	13	338.0	5074.6	18	95	257.2	362.3	14.7	134.9	13.8
0002	EAST OF HARDIN												
	HARDIN 59034												
00003	SPRING CREEK COAL	1211	140	13	351.5	4997.0	17	95	191.8	243.8	17.6	201.9	22.7
0003	SPRING CREEK MINE												
	DECKER 59025												
00004	DECKER COAL COMPANY - WEST	1211	140	13	357.0	4989.0	18	95	550.6	402.2	24.0	218.7	16.9
0004	WEST DECKER MINE												
	DECKER 59025												
00001	DECKER COAL COMPANY - EAST	1211	140	13	359.5	4991.0	18	95	186.2	342.7	21.7	198.5	16.9
0001	EAST DECKER MINE												
	DECKER 590250000												
	NUMBER OF PLANTS > 100 TONS PER YEAR								4	4	0	4	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								1185.8	1351.0	78.0	754.0	70.3

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 005 BLAINE CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	HAVRE PIPELINE CO - BLAINE COUNTY	4922	141	12	617.0	5364.0	5	95	2.7	159.2	0.1	1910.7	84.9
0001	T31N, R18E, SEC. 29												
	CHINOOK 59523												
00003	HAVRE PIPELINE CO - BLAINE CO #3	4922	141	12	625.0	5330.0	2	95	0.1	15.4	0.0	8.7	4.3
0003	T27N, R19E, SEC7												
	CHINOOK 59523												
00005	MPC - BOWES FIELD, STATION 071	4922	141	12	627.8	5369.5	3	95	0.0	7.3	0.0	12.0	4.7
0005	SE1/4, SEC4, T31N, R19E												
	CHINOOK 59523												
00006	MPC - BIG SANDY FIELD, STATION 103	4922	141	12	626.6	5329.5	2	95	0.0	8.3	0.0	55.9	0.9
0006	SE1/4, SEC8, T27N, R19E												
	LLOYD 59535												
00007	BEAR PAW GATHERING SYSTEMS - BIG S	4922	141	12	622.5	5303.1	3	95	0.0	0.7	0.0	10.6	0.2
0007	SE1/4SE1/4, SEC 35, T25N, R18E												
	CONRAD 59425												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	1	0	1	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								2.8	190.9	0.1	1997.9	95.0

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 007 BROADWATER CO.

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00002	CONTINENTAL LIME		3274	142	12	453.0	5131.0	21	95	142.7	55.1	4.9	238.0	7.9
0002	INDIAN CREEK													
	TOWNSEND	596440000												
00004	NORTHMONT RESOURCES AND EXPLORATIO		1041	142	12	449.2	5114.8	6	95	1.3	0.0	0.0	0.0	0.0
0004	1.5 MILES WEST OF RADERSBURG													
	RADERSBURG	59641												
	NUMBER OF PLANTS > 100 TONS PER YEAR									1	0	0	1	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									144.0	55.1	4.9	238.0	7.9

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 009 CARBON CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	MONTANA LIMESTONE COMPANY		1499	140	12	684.5	4991.7	4	95	13.5	0.0	0.0	0.0	0.0
0001	US 310 WARREN MONTANA													
	BRIDGER	59014												
00002	MPC - DRY CREEK FIELD, STATION 056		4922	140	12	647.0	5013.2	8	95	0.0	17.4	0.0	99.6	24.9
0002	SW1/4, SEC34, T6S, R5E													
	RED LODGE	59068												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									13.5	17.4	0.0	99.6	24.9

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 013 CASCADE CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00004	MONTANA REFINING	2911	141	12	478.1	5263.0	28	95	17.5	49.8	1200.5	91.7	396.8
0004	1900 10TH STREET NE												
	GREAT FALLS 59404												
00010	GREAT FALLS CITY ASPHALT PLANT	2951	141	12	478.5	5264.0	4	95	0.5	0.0	0.0	0.0	0.0
0010	N OF CITY SHOP COMPLEX												
	GREAT FALLS 594010000												
00011	UNITED MATERIALS	2951	141	12	467.0	5253.5	16	95	48.7	1.5	2.9	0.0	1.1
0011	2100 9TH AVENUE NO.												
	GREAT FALLS 59401												
00013	CEREAL FOOD PROCESSORS, INC.	2041	141	12	479.0	5262.2	12	95	25.9	0.1	0.0	0.5	0.0
0013	900 16TH STREET NORTH												
	GREAT FALLS 594010000												
00014	MT DEPT TRANSPORTATION ASPHALT BAT	1611	141	12	471.5	5263.0	2	92	3.5	0.0	0.0	0.0	0.0
0014	EMERSON JUNCTION												
	GREAT FALLS 59403												
00015	GTA FEEDS	2041	141	12	483.0	5262.5	6	95	0.9	0.0	0.0	0.0	0.0
0015	NORTHEAST BYPASS												
	GREAT FALLS 59403												
00016	MALMSTROM AFB, BUILDING 82110	9711	141	12	485.7	5263.0	4	95	1.1	13.7	17.0	96.3	0.2
0016	7619 14TH AVENUE NORTH												
	MALMSTOM AFB 594026788												
00007	BIG SKY FEED & SUPPLY	2048	141	12	478.0	5262.0	7	95	0.2	0.0	0.0	0.0	0.0
0007	601 8TH AVENUE, NORTH												
	GREAT FALLS 594030000												
00003	GENERAL MILLS, INC.	2041	141	12	480.3	5262.3	19	95	0.8	0.0	0.0	0.0	0.0
0003	2500 9TH AVENUE NORTH												
	GREAT FALLS 59401												
00012	AGRI BASICS	2048	141	12	479.0	5262.2	8	95	0.8	0.1	0.0	0.7	0.0
0012	921 15TH ST N												
	GREAT FALLS 59401												
00019	COLUMBIA GRAIN INTERNATIONAL INC	5153	141	12	479.3	5262.4	4	95	9.7	0.0	0.0	0.0	0.0
0019	1820 12TH AVE N & 800 CRESCENT												
	GREAT FALLS 59404												
00020	GREAT FALLS REDI MIX	2951	141	12	474.3	5261.8	7	95	0.8	0.0	7040.0	811.7	4.1
0020	1800 VAUGHN ROAD												
	GREAT FALLS 59404												
00021	CASCADE COUNTY ROAD DEPARTMENT	1446	141	12	0.0	0.0	5	94	6.5	0.0	0.0	0.0	0.0
0021	415 3RD STREET N.W.												
	GREAT FALLS 59404												
00022	CONOCO INC.	5171	141	0	0.0	0.0	7	95	0.0	0.0	0.0	0.0	132.5
0022	1401 52ND STREET NORTH												
	GREAT FALLS 59405												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	2	1	2
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								116.9	65.2	8260.4	1000.9	534.7

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 015 CHOUTEAU CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	MPC - BIG SANDY FIELD, STATION 102	4922	141	12	601.9	5324.5	2	95	0.0	7.7	0.0	10.0	0.9
0001	NW1/4, SEC26, T27N, R16E												
	HAVRE 59501												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								0.0	7.7	0.0	10.0	0.9

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 017 CUSTER CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	WILLISTON BASIN - HATHAWAY STATION		4922	143	13	417.4	5129.5	2	95	0.5	2.6	0.0	41.3	0.0
0001	16 MILES WEST OF MILES CITY													
	HATHAWAY	59333												
00002	MDU - MILES CITY		4911	143	13	438.7	5139.5	3	95	0.6	5.4	0.0	19.4	1.0
0002	EAST LEIGHTON BLVD													
	MILES CITY	59301												
00004	TRANSCISCO		4789	143	0	0.0	0.0	2	95	0.3	0.0	0.0	0.0	14.2
0004	P.O. BOX 1222													
	MILES CITY	59301												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									1.4	8.0	0.0	60.7	15.2

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 021 DAWSON CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00003	CENEX - GLENDIVE		5171	143	13	518.3	5216.1	2	95	0.0	0.0	0.0	0.0	27.8
0003	2510 W. TOWNE													
	GLENDIVE	59330												
00002	CENTURY CONSTRUCTION		2951	143	13	511.2	5216.7	2	95	0.1	0.0	0.0	0.0	0.0
0002	WEST OF GLENDIVE													
	GLENDIVE	59330												
00005	MDU - GLENDIVE		4911	143	13	520.3	5210.8	2	95	1.0	8.6	0.2	30.9	0.9
0005	MARSH ROAD													
	GLENDIVE	59330												
00006	TEXACO PIPELINE INC - RICHEY STATI		4612	143	13	507.5	5271.6	3	95	0.0	0.0	0.0	0.0	6.7
0006	T21N, R53E, SEC10													
	GLENDIVE	59330												
00007	TEXACO PIPELINE INC - GLENDIVE STA		4612	143	13	517.0	5212.9	1	95	0.0	0.0	0.0	0.0	16.9
0007	T15N, R55E, SEC8													
	GLENDIVE	59330												
00004	WILLISTON BASIN - MORGAN CREEK		4922	143	13	529.5	5235.1	4	95	0.3	7.9	0.0	2.2	7.8
0004	NE1/4 SW1/4 SEC 32 T18N R56E													
	GLENDIVE	59330												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									1.4	16.5	0.2	33.1	60.1

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STATE: 30 MONTANA COUNTY: 025 FALLON CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	WESTERN GAS RESOURCES - BAKER GAS	4922	143	13	571.7	5136.1	7	95	0.2	25.8	0.0	197.6	41.2
0001	SEC. 6, T7N, R60E												
	BAKER 59313												
00002	WILLISTON BASIN - LITTLE BEAVER	4922	143	13	572.3	5105.1	12	95	0.4	283.1	0.0	105.3	40.2
0002	HC 73 BOX 5013												
	BAKER 59313												
00003	WILLISTON BASIN - CABIN CREEK	4922	143	13	544.5	5162.2	16	95	3.3	83.5	0.1	308.4	49.2
0003	HC 72 BOX 6020												
	BAKER 59313												
00004	SWEPI - CABIN CREEK ENGINE	1311	143	13	537.4	5163.4	1	95	0.3	15.6	0.0	124.1	3.0
0004	SEC. 17, T10N, R58E												
	BAKER 59313												
00006	KOCH GATHERING SYSTEMS,INC.	5171	143	0	0.0	0.0	2	95	0.0	0.0	0.0	0.0	0.9
0006	T7N R58E SEC 3												
	BAKER 59313												
00005	SWEPI - CABIN CREEK GCF	1311	143	13	541.0	5163.5	2	95	0.0	0.0	13.2	0.9	36.3
0005	SEC 18, T10N, R58E												
	BAKER 59313												
00008	WILLISTON BASIN - MONARCH STATION	4922	143	13	549.3	5148.6	6	95	0.3	19.7	0.0	16.5	6.7
0008	NE 1/4, SEC. 36, T9N, R58E												
	BAKER 59313												
00009	SHELL WESTERN EPI - PENNEL 30	1311	143	13	555.2	5139.3	1	95	0.5	34.5	0.0	12.0	4.5
0009	NE1/4, SEC. 36, T8N R59E												
	BAKER 59313												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	1	0	4	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								5.0	462.2	13.3	764.8	182.0

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STATE: 30 MONTANA COUNTY: 027 FERGUS CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00004	CENTURY CONSTRUCTION		2951	140	12	615.6	5212.3	2	95	1.2	0.0	0.1	0.1	0.0
0004	BOX 739													
	LEWISTOWN	59457												
00005	C R KENDALL		1041	140	12	616.5	5237.5	14	95	32.0	60.9	0.4	5.0	2.1
0005	PO BOX 799													
	HILGER	59451												
00006	MOUNTAIN MEADOWS PET PRODUCTS		3999	140	12	620.0	5245.0	7	95	9.6	0.1	0.0	0.8	0.0
0006	SEC. 15, T15N, R18E													
	LEWISTOWN	59457												

	PM10	CO	SO2	NO2	VOC
NUMBER OF PLANTS > 100 TONS PER YEAR	0	0	0	0	0
TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)	42.8	61.0	0.5	5.9	2.1

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STATE: 30 MONTANA COUNTY: 029 FLATHEAD CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00024	A-1 PAVING, INC.		1611	144	0	0.0	0.0	2	95	1.6	2.4	7.9	3.5	1.6
0024	3131 HIGHWAY 2 EAST													
	KALISPELL	59901												
00025	MC ELROY AND WILKEN		1442	144	11	700.5	5343.0	3	95	4.6	0.0	0.0	0.1	0.0
0025	801 WHITEFISH STAGE													
	KALISPELL	59901												
00026	PARTNERS IN WOOD		2499	144	11	718.5	5366.9	1	93	0.1	3.2	0.0	0.0	0.3
0026	P.O. BOX 157													
	WEST GLACIER	59936												
00005	PLUM CREEK EVERGREEN		2436	144	11	701.6	5345.3	16	95	68.7	202.6	7.7	144.0	84.1
0005	2 MI NE OF KALISPELL													
	KALISPELL	59903												
00006	KLINGLER LUMBER		2421	144	11	700.5	5342.9	4	94	3.7	0.0	0.0	0.0	0.0
0006	350 FLATHEAD DRIVE													
	KALISPELL	59901												
00008	PLUM CREEK-COLUMBIA FALLS		2436	144	11	708.1	5361.8	36	95	366.8	1865.6	14.3	404.8	395.7
0008	500 12TH AVENUE WEST													
	COLUMBIA FALLS	59912												
00010	STOLTZE LAND AND LUMBER COMPANY		2421	144	11	704.1	5362.8	19	95	64.9	24.0	0.9	4.0	44.4
0010	3 MI W OF COLUMBIA FALLS													
	COLUMBIA FALLS	59912												
00016	PACK & COMPANY		2951	144	11	698.4	5345.7	3	95	4.0	0.7	1.3	0.6	0.5
0016	2355 HWY 93N													
	KALISPELL	59901												
00017	FLATHEAD COUNTY ROAD DEPT. - ASPHA		2951	144	11	705.2	5343.2	2	95	5.8	0.1	1.5	0.4	0.0
0017	5 MILES EAST OF KALISPELL													
	KALISPELL	59901												
00019	STILLWATER FOREST PRODUCTS		2421	144	11	700.3	5343.3	4	95	5.9	0.0	0.0	0.0	0.0
0019	955 WHITEFISH STAGE ROAD													
	KALISPELL	59901												
00003	AMERICAN TIMBER COMPANY		2421	144	11	679.0	5378.5	7	95	89.0	116.0	4.3	19.7	40.6
0003	P.O. BOX 128													
	OLNEY	59927												
00012	COLUMBIA FALLS ALUMINUM		3334	144	11	712.1	5363.8	31	95	504.2	28934.6	1261.0	9.5	390.1
0012	2000 ALUMINUM DRIVE													
	COLUMBIA FALLS	59912												
00027	EQUITY SUPPLY COMPANY		4221		11	699.9	5341.5	4	95	2.4	0.0	0.0	0.0	0.0
0027	P.O. BOX 579													
	KALISPELL	599030579												
	NUMBER OF PLANTS > 100 TONS PER YEAR									2	4	1	2	2
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									1121.7	31149.2	1298.9	586.6	957.3

STATE: 30 MONTANA COUNTY: 031 GALLATIN CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00004	LOUISIANA-PACIFIC - BELGRADE		2421	142	12	485.4	5068.7	11	95	85.3	38.6	1.4	9.9	73.6
0004	400 JACKRABBIT LANE													
	BELGRADE	59714												
00006	LUZENAC AMERICA - THREE FORKS PLAN		1499	142	12	457.3	5081.0	60	95	31.9	153.5	25.0	242.1	24.6
0006	2150 BENCH ROAD													
	THREE FORKS	59752												
00008	MONTANA TALC - LUZENAC/SAPPINGTON		3295	142	12	440.0	5071.5	30	95	10.5	1.3	0.1	4.3	0.3
0008	28769 SAPPINGTON RD													
	THREE FORKS	597520000												
00005	HOLNAM, INC.		3241	142	12	464.4	5088.0	53	95	186.7	71.0	31.7	1330.2	1.7
0005	4070 TRIDENT RD													
	THREE FORKS	59752												
00001	JTL GROUP		2951	142	12	487.7	5067.1	3	95	5.6	2.6	5.1	2.5	1.9
0001	21730 FRONTAGE ROAD													
	BELGRADE	59714												
00007	KANTA PRODUCTS		3255	142	12	456.0	5080.2	5	95	4.6	0.0	0.0	0.0	0.0
0007	WILLOW CREEK ROAD													
	THREE FORKS	59752												
00009	EXXON - BOZEMAN MARKETING TERMINAL		5171	142	12	497.1	5060.4	3	95	0.0	0.0	0.0	0.0	13.8
0009	220 W. GRIFFIN DRIVE													
	BOZEMAN	59715												
00010	MSU - CENTRAL HEATING PLANT		8221	142	12	496.5	5056.5	3	95	0.4	3.1	0.0	10.5	0.4
0010	OFFICE OF FACILITY SERVICES													
	BOZEMAN	59717												
00012	CONOCO INC		5171	142	0	0.0	0.0	6	95	0.0	0.0	0.0	0.0	75.8
0012	318 WEST GRIFFIN DRIVE													
	BOZEMAN	59715												
	NUMBER OF PLANTS > 100 TONS PER YEAR									1	1	0	2	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									325.0	270.1	63.3	1599.5	192.1

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STATE: 30 MONTANA COUNTY: 035 GLACIER CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00004	MPC CUT BANK MAINLINE #1 STATION	1321	141	12	408.3	5383.8	10	95	1.3	80.5	0.0	37.4	13.2
0004	4 MILES SE OF CUT BANK												
	CUT BANK 59427												
00009	MPC - COBB STORAGE FIELD, STATION	4922	141	12	408.8	5405.5	8	95	0.0	1.2	0.0	3.7	0.7
0009	NW1/4, SEC 15, T35N, R5W												
	CUT BANK 59427												
00010	MPC - CUT BANK FIELD, STATION 001	4922	141	12	409.4	5387.6	2	95	0.0	6.1	0.0	2.9	4.5
0010	NW1/4, SEC 11, T33N, R5W												
	CUT BANK 59427												
00006	MPC - CUT BANK FIELD, STATION 015	4922	141	12	406.2	5398.5	2	95	0.0	4.2	0.0	23.2	15.8
0006	NW1/4, SEC4, T34N, R5W												
	CUT BANK 59427												
00008	MPC - CUT BANK FIELD, STATION 025	4922	141	12	411.9	5412.1	2	95	0.0	6.9	0.0	65.3	1.2
0008	SE1/4, SEC24, T36N, R5W												
	CUT BANK 59427												
00011	MPC - CUT BANK, STATION 018	4922	141	12	420.0	5345.8	2	95	0.0	1.8	0.0	27.3	19.2
0011	NW1/4, SEC22, T35N, R5W												
	CUT BANK 59427												
00007	MPC - CUT BANK FIELD, STATION 002	4922	141	12	407.5	5408.9	3	95	0.0	3.4	0.0	3.8	7.4
0007	SE1/4, SEC33, T36N, R5W												
	CUT BANK 59427												
00005	CONOCO INC - CUT BANK CRUDE OIL PI	4612	141	12	404.0	5385.8	1	95	0.0	0.0	0.0	0.0	9.3
0005	1252 TANK FARM HILL												
	CUT BANK 59427												
00012	GYPSY HIGHVIEW-RED RIVER STATION	1311	141	12	411.9	5421.1	3	95	0.0	5.4	0.0	3.6	4.5
0012	18.5 MILES NORTH OF CUT BANK												
	CUT BANK 59427												
00013	BLACKFEET SHALLOW GAS SYSTEMS	4922	141	12	400.9	5426.8	3	95	0.0	0.0	0.0	25.6	9.1
0013	SE 1/4,SW 1/4,SEC 2,T37N,R6W												
	CUT BANK 59427												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								1.3	109.5	0.0	192.8	84.9

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STATE: 30 MONTANA COUNTY: 037 GOLDEN VALLEY. CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	MPC - BIG COULEE FIELD, STATION 05	4922	140	12	632.8	5111.7	4	95	0.0	0.8	0.0	7.6	0.3
0001	SE1/4, SEC25, T19E, R5N												
	RYEGATE 59074												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								0.0	0.8	0.0	7.6	0.3

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STATE: 30 MONTANA COUNTY: 039 GRANITE CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00002	CONTACT MINING COMPANY	1099	142	12	324.0	5131.8	1	95	0.2	0.0	0.0	0.0	0.0
0002	1/2 MILE SOUTH OF PHILLIPSBURG												
	PHILLIPSBURG 59858												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								0.2	0.0	0.0	0.0	0.0

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STATE: 30 MONTANA COUNTY: 041 HILL CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00002	HAVRE PIPELINE COMPANY		4922	141	12	596.0	5366.0	2	95	0.5	121.9	0.0	141.6	1.5
0002	P.O. BOX 2606													
	HAVRE	59501												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	1	0	1	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									0.5	121.9	0.0	141.6	1.5

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STATE: 30 MONTANA COUNTY: 043 JEFFERSON CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00003	MONTANA TUNNELS MINE		1041	142	12	412.5	5135.5	17	95	190.0	222.6	44.3	407.9	31.1
0003	PO BOX 176													
	JEFFERSON CITY	59638												
00001	ASH GROVE CEMENT		3241	142	12	429.0	5154.5	22	95	139.6	19.3	83.5	491.2	1.8
0001	100 HIGHWAY 518													
	CLANCY	596349701												
00002	GOLDEN SUNLIGHT MINE		1041	142	12	421.6	5083.0	19	95	474.8	547.6	39.8	406.9	27.0
0002	453 HWY 2 EAST													
	WHITEHALL	597590000												
	NUMBER OF PLANTS > 100 TONS PER YEAR									3	2	0	3	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									804.4	789.5	167.6	1306.0	59.9

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STATE: 30 MONTANA COUNTY: 049 LEWIS AND CLARK CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	ASARCO INCORPORATED		3332	142	12	429.5	5158.8	36	95	216.1	6.1	13254.9	24.5	0.4
0001	100 SMELTER ROAD													
	EAST HELENA	59635												
00003	AMERICAN CHEMET		2819	142	12	429.0	5160.0	29	95	2.2	0.8	0.0	4.1	0.2
0003	SMELTER ROAD													
	EAST HELENA	59635												
00005	HELENA SAND & GRAVEL		2951	142	12	427.1	5162.7	4	95	1.9	4.5	2.7	18.1	1.7
0005	P.O. BOX 5960													
	HELENA	59604												
00006	BASIN CREEK MINE		1041	142	12	401.0	5141.5	16	95	24.1	57.0	4.9	50.0	4.8
0006	20 MILES SW OF HELENA													
	BASIN	59631												
00007	U.S. DEPARTMENT OF VETERANS AFFAIR		4953	142	12	415.7	5163.2	1	95	0.0	0.2	0.0	0.0	0.0
0007	VA CENTER													
	FORT HARRISON	59636												
00010	EXXON - HELENA MARKETING TERMINAL		5171	142	12	424.8	5160.1	3	95	0.0	0.0	0.0	0.0	15.6
0010	3120 HIGHWAY 12 EAST													
	HELENA	59601												
00011	CONOCO INC.		5171	142	0	0.0	0.0	8	95	0.0	0.0	0.0	0.0	95.5
0011	3180 HIGHWAY 12 EAST													
	HELENA	59601												
	NUMBER OF PLANTS > 100 TONS PER YEAR									1	0	1	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									244.3	68.6	13262.5	96.7	118.2

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STATE: 30 MONTANA COUNTY: 051 LIBERTY CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	MPC - EAST KEITH FIELD, STATION 03	4922	141	12	505.3	5412.3	3	95	0.0	1.9	0.0	7.6	4.0
0001	SE1/4 NE1/4 SEC. 22 T36N R6E												
	SHELBY 59474												
00002	MPC - UTOPIA FIELD, STATION 035	4922	141	12	486.5	5384.3	3	95	0.0	3.6	0.0	30.1	0.4
0002	SW1/4, SEC14, T33N, R4E												
	LOTHAIR 59461												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								0.0	5.5	0.0	37.7	4.4

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STATE: 30 MONTANA COUNTY: 053 LINCOLN CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	OWENS & HURST		2421	144	11	642.3	5419.7	5	95	32.8	0.0	0.0	0.0	0.0
0001	NORTH ON HIWAY 93													
	EUREKA	59917												
00002	PLUM CREEK MFG., LP-KSANKA		2421	144	11	655.3	5402.7	6	95	41.9	36.8	1.3	6.2	12.8
0002	PO BOX 28, HIWAY 93 N.													
	FORTINE	59918												
00003	ASARCO - TROY		1021	144	11	581.5	5345.6	5	95	6.8	1.5	0.4	3.6	0.2
0003	P.O. BOX 868													
	TROY	59935												
00004	STIMSON LUMBER - LIBBY		2436	144	11	607.8	5359.7	7	95	34.1	10.4	10.5	41.9	3.6
0004	875 HIGHWAY 2 SOUTH													
	LIBBY	59923												
00010	EUREKA PELLET MILLS		2421	144	11	642.0	5419.2	3	95	30.0	3.0	0.1	0.9	1.0
0010	P.O. BOX 667													
	EUREKA	59917												
00013	DIVERSIFIED HOUSE LOGS, INC		2421	144	11	582.9	5396.8	1	93	3.8	130.0	0.1	1.0	11.0
0013	11677 YAAK RIVER ROAD													
	TROY	59935												

	PM10	CO	SO2	NO2	VOC
NUMBER OF PLANTS > 100 TONS PER YEAR	0	1	0	0	0
TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)	149.4	181.7	12.4	53.6	28.6

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STATE: 30 MONTANA COUNTY: 055 MC CONE CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	WILLISTON BASIN - VIDA STATION	4922	143	13	473.0	5304.7	6	95	0.5	18.7	0.0	81.0	14.2
0001	N1/2 NE1/4 SEC 27 T25N R49E												
	VIDA 59330												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								0.5	18.7	0.0	81.0	14.2

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STATE: 30 MONTANA COUNTY: 057 MADISON CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00005	LUZENAC AMERICA INC. - ANTLER MINE	1499	142	12	359.0	5050.0	8	95	24.1	1.7	0.4	4.2	0.1
0005	SOUTH OF SILVER STAR												
	ALDER 59710												
00006	LUZENAC AMERICA INC. - ALDER PLANT	1499	142	12	410.0	5010.0	2	92	0.3	0.0	0.0	0.0	0.0
0006	ALDER PLANT												
	ALDER 59710												
00007	LUZENAC AMERICA INC. - BEAVERHEAD	1499	142	12	398.0	5009.5	6	95	6.5	4.6	0.1	1.6	0.2
0007	BEAVERHEAD MINE												
	ALDER 59710												
00001	LUZENAC AMERICA - YELLOWSTONE MINE	3295	142	12	442.9	4991.4	12	95	61.8	36.6	4.4	40.7	3.2
0001	22 MILES SOUTH OF ENNIS												
	CAMERON 59720												
00002	LUZENAC AMERICA - JOHNNY GULCH MIN	1496	142	12	442.5	4991.5	13	94	34.0	24.4	2.5	23.3	1.9
0002	4 MILES SOUTH CAMERON												
	ENNIS 59729												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								126.7	67.3	7.4	69.8	5.4

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STATE: 30 MONTANA COUNTY: 059 MEAGHER CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	ALCOTECH INDUSTRIES		2869	142	12	515.1	5124.1	2	94	12.3	7.5	0.3	2.7	6.6
0001	1/4 MILE NORTH OF RINGLING													
	RINGLING	59642												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									12.3	7.5	0.3	2.7	6.6

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STATE: 30 MONTANA COUNTY: 061 MINERAL CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00003	NORTHWEST LUMBER AND CEDAR		2421	144	11	644.5	5241.0	2	91	7.3	0.0	0.1	1.9	20.9
0003	P.O. BOX 417													
	ST. REGIS	59866												
00004	TRICON TIMBER INC.		2421	144	11	644.8	5241.4	3	95	15.0	25.2	0.9	17.6	8.8
0004	1 MILE NORTHEAST OF ST. REGIS													
	ST. REGIS	59866												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									22.3	25.2	1.0	19.5	29.7

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STATE: 30 MONTANA COUNTY: 063 MISSOULA CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00004	PYRAMID MTN LUMBER		2421	144	12	312.0	5226.7	8	95	42.1	27.6	1.0	19.3	9.6
0004	SOUTH EDGE OF TOWN													
	SEELEY LAKE	59868												
00006	STONE CONTAINER		2631	144	11	713.1	5204.6	44	95	486.9	3746.1	164.5	2059.2	882.7
0006	MULLEN ROAD													
	MISSOULA	598014707												
00008	MISSOULA WHITE PINE		2431	144	11	728.2	5196.7	18	95	12.9	7.4	0.5	5.2	2.6
0008	1301 SCOTT ST.													
	MISSOULA	598017009												
00009	AMERICAN ASPHALT		2951	144	11	724.9	5198.7	2	93	4.1	0.2	0.4	0.2	0.1
0009	MULLAN ROAD AT FLYNN LANE													
	MISSOULA	59802												
00002	LOUISIANA-PACIFIC		2493	144	11	726.4	5198.6	30	95	133.3	51.8	1.8	17.6	162.6
0002	3300 RASER DRIVE													
	MISSOULA	59802												
00012	JENSEN PAVING - GRANT CREEK		1611	144	11	725.9	5198.9	2	95	22.1	0.6	1.1	0.5	0.4
0012	GRANT CREEK ROAD													
	MISSOULA	59801												
00001	STIMSON LUMBER - MISSOULA		2421	144	12	281.5	5194.8	5	95	131.2	257.0	9.6	180.4	89.9
0001	HIGHWAY 200 EAST													
	BONNER	59823												
00007	JTL GROUP - TARGET RANGE		2951	144	11	722.9	5191.9	3	95	4.7	0.0	0.0	0.0	0.0
0007	2800 40TH AVENUE													
	MISSOULA	59801												
00013	JTL GROUP - WESTVIEW		1611	144	11	724.9	5198.7	3	95	3.1	1.3	2.6	1.2	1.0
0013	2700 MICHAEL ROAD													
	MISSOULA	59802												
00014	MISSOULA READY MIX		3273	144	0	0.0	0.0	3	95	1.2	0.0	0.0	0.0	0.0
0014	1600 RIVER ROAD													
	MISSOULA	59801												
00015	BROWNING-FERRIS IND OF MT,INC. LAN		4953	144	11	727.1	5198.5	1	95	0.1	6.6	0.1	1.6	0.0
0015	SEC.8,9 T13N R19W COAL MINE RD													
	MISSOULA	59802												
00017	EXXON COMPANY USA		5171	144	11	726.2	5198.0	3	95	0.0	0.0	0.0	0.0	10.0
0017	3350 RASER DRIVE													
	MISSOULA	59801												
00019	CONOCO, INC.		5171	144	0	0.0	0.0	7	95	0.0	0.0	0.0	0.0	32.3
0019	3330 RASER DRIVE													
	MISSOULA	59802												
	NUMBER OF PLANTS > 100 TONS PER YEAR									3	2	1	2	2
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									841.7	4098.6	181.6	2285.2	1191.2

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STATE: 30 MONTANA COUNTY: 065 MUSSELSHELL CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	MOUNTAIN INC. BULL MOUNTAIN MINE	1211	140	12	698.4	5127.1	5	95	6.3	0.0	0.0	0.0	0.0
0001	2240 FATTIG CREEK ROAD												
	ROUNDUP 59072												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								6.3	0.0	0.0	0.0	0.0

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STATE: 30 MONTANA COUNTY: 067 PARK CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	BRAND S LUMBER	2421	142	12	534.0	5053.0	7	94	12.3	2.5	0.7	11.8	0.8
0001	1 MI. SE OF I90 & US89 INTRCHG LIVINGSTON 590470000												
00002	PARK COUNTY INCINERATOR	4953	142	12	535.4	5058.6	1	95	10.1	24.5	12.2	31.7	10.8
0002	328 NORTH M STREET LIVINGSTON 59047												
00003	PARK LUMBER COMPANY, INC.	2421	142	12	536.0	5058.0	3	95	1.6	3.2	0.0	0.0	0.2
0003	1.5 MILES EAST OF LIVINGSTON LIVINGSTON 59047												
00004	TVX - MINERAL HILL MINE	1041	142	12	530.0	4990.5	13	95	12.8	54.6	3.8	35.8	3.8
0004	SEC. 9, TOWNSHIP 9E, RANGE 9S GARDINER 59030												
00007	EGGAR, INC.	1442	142	12	505.0	5050.5	3	94	6.0	0.0	0.0	0.0	0.0
0007	T1S, R10E, SEC. 35 LIVINGSTON 59047												
00008	MPC - LIVINGSTON STATION 1&2	4922	142	12	527.1	5055.7	2	95	0.0	18.1	0.0	5.1	7.2
0008	NEQ NEQ S19+20 T2S R9E LIVINGSTON 59047												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								42.8	102.9	16.7	84.4	22.8

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STATE: 30 MONTANA COUNTY: 071 PHILLIPS CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00002	ZORTMAN MINING, INC. (LANDUSKY)	1041	143	12	678.5	5310.0	13	95	771.7	528.5	59.6	543.8	26.5
0002	PO BOX 313												
	ZORTMAN 59546												
00001	ZORTMAN MINING, INC. (ZORTMAN)	1041	143	12	683.1	5311.3	13	95	25.0	4.2	0.0	1.1	0.1
0001	P.O. BOX 313												
	ZORTMAN 595460000												
	NUMBER OF PLANTS > 100 TONS PER YEAR								1	1	0	1	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								796.7	532.7	59.6	544.9	26.6

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STATE: 30 MONTANA COUNTY: 073 PONDERA CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	BUSCH AGRICULTURAL RESOURCES, INC.	5153	141	12	429.0	5334.0	5	95	4.3	0.0	0.0	0.0	0.0
0001	HIGHWAY 91 AND FRONT STREET												
	CONRAD 59425												
00003	MPC - WILLIAMS FIELD, STATION 041	4922	141	12	408.3	5403.2	2	95	0.0	1.7	0.0	12.2	12.0
0003	NE1/4, SEC2, T29N, R4W												
	SHELBY 59474												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								4.3	1.7	0.0	12.2	12.0

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STATE: 30 MONTANA COUNTY: 077 POWELL CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	COMINCO FERTILIZERS		1475	142	12	361.7	5165.3	14	94	0.1	0.1	0.0	0.4	0.0
0001	P.O. BOX 638													
	GARRISON	59731												
00002	LOUISIANA-PACIFIC CORP.		2421	142	12	366.0	5138.5	14	95	75.5	69.5	2.4	19.4	79.1
0002	KENTUCKY AVENUE													
	DEER LODGE	59722												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									75.6	69.6	2.4	19.8	79.1

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STATE: 30 MONTANA COUNTY: 081 RAVALLI CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	DARBY LUMBER INC.		1741	144	11	720.3	5095.7	9	95	53.3	25.4	3.5	4.8	8.9
0001	4114 HWY. 93													
	DARBY	59829												
00003	MASSA READY MIX		1771	144	0	0.0	0.0	2	94	2.0	0.0	0.0	0.0	0.0
0003	SE1/4,NE1/4,SEC6,T6N,R20W													
	HAMILTON	59840												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									55.3	25.4	3.5	4.8	8.9

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AFS COUNTY POINT SOURCE SUMMARY

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STATE: 30 MONTANA COUNTY: 083 RICHLAND CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00008	KOCH-N. YELLOWSTONE STATION		4922	143	13	556.0	5290.0	3	95	0.6	29.6	0.0	38.8	0.2
0008	SECTION 12, T59N, R23E													
	SIDNEY	59270												
00003	MDU - LEWIS & CLARK STATION		4911	143	13	563.4	5280.7	1	95	28.7	67.2	1006.0	896.2	7.8
0003	HWY 23, SOUTH OF SIDNEY													
	SIDNEY	59270												
00002	HOLLY SUGAR CORPORATION		2063	143	13	564.9	5285.0	27	95	153.1	174.4	57.4	290.8	18.5
0002	P.O. BOX 1168													
	SIDNEY	59270												
00005	KNIFE RIVER COAL		1211	143	13	543.0	5257.5	11	95	61.3	20.8	1.2	11.9	1.3
0005	NEAR SAVAGE													
	SAVAGE	59262												
00012	TEXACO PIPELINE INC - SIDNEY STATI		4612	143	13	568.5	5181.3	1	95	0.0	0.0	0.0	0.0	2.3
0012	T22N, R59E, SEC12													
	SIDNEY	59270												
00011	TEXACO PIPELINE INC - PUTNAM STATI		4612	143	13	551.9	5291.4	1	95	0.0	0.0	0.0	0.0	0.7
0011	T23N, R57E, SEC13													
	SIDNEY	59270												
00013	TEXACO PIPELINE INC - FAIRFIELD ST		4612	143	0	0.0	0.0	1	95	0.0	0.0	0.0	0.0	9.1
0013	SEC. 36, 725N-R58E													
	FAIRVIEW	59221												
00014	KOCH HYDROCARBON COMPANY		4922	143	0	0.0	0.0	1	95	0.3	6.7	0.0	4.5	0.3
0014	NW1/4 NW1/4 SEC. 8, 723N-R58E													
	SIDNEY	59270												

	PM10	CO	SO2	NO2	VOC
NUMBER OF PLANTS > 100 TONS PER YEAR	1	1	1	2	0
TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)	244.0	298.7	1064.6	1242.2	40.2

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STATE: 30 MONTANA COUNTY: 085 ROOSEVELT CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00003	KOCH - BAINVILLE COMPRESSOR STATIO	4922	143	13	545.0	5332.0	4	95	1.7	100.8	0.6	142.7	0.1
0003	SECTION 20, T28N, R58E												
	BAINVILLE 59212												
00004	TEXACO PIPELINE INC - POPLAR STATI	4612	143	13	500.5	5345.0	1	95	0.0	0.0	0.0	0.0	9.2
0004	SEC30, T29N, R51E												
	BROCKTON 59213												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	1	0	1	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								1.7	100.8	0.6	142.7	9.3

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STATE: 30 MONTANA COUNTY: 087 ROSEBUD CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00009	BIG SKY COAL COMPANY		1211	143	13	376.0	5075.0	17	95	427.4	293.6	26.1	238.3	17.7
0009	P.O. BOX 97													
	COLSTRIP	59323												
00011	ST. LABRE INDIAN SCHOOL		9999	143	13	400.2	5051.0	2	95	21.5	29.5	1.1	5.0	10.3
0011	P.O. BOX 48													
	ASHLAND	59003												
00004	WESTERN ENERGY		1211	143	13	375.0	5081.0	40	95	1024.8	733.6	75.8	471.4	35.5
0004	ROSEBUD MINE													
	COLSTRIP	59323												
00010	NORTHERN CHEYENNE PINE CO		2421	143	12	400.5	5049.9	12	95	85.5	25.2	0.9	4.2	8.8
0010	HIGHWAY 212 WEST													
	ASHLAND	59003												
00007	COLSTRIP ENERGY LTD. PARTNERSHIP		4911	143	13	371.5	5092.6	2	95	10.4	8.3	1044.2	661.6	9.3
0007	ROSEBUD PLANT													
	COLSTRIP	59323												
00008	MPC - COLSTRIP UNITS #1 & #2		4911	143	13	374.3	5082.2	4	95	91.0	693.0	7754.0	9633.0	97.0
0008	P.O. BOX 38													
	COLSTRIP	59323												
00012	AGRI SYSTEMS		2421	143	12	400.5	5049.8	3	93	7.2	2.2	0.0	0.3	0.7
0012	HIGHWAY 212													
	ASHLAND	59003												
00014	MPC - COLSTRIP UNITS #3 & #4		4911	143	13	374.3	5082.2	3	95	147.3	1536.0	3310.0	16177.0	198.9
0014	P.O. BOX 38													
	COLSTRIP	59323												
	NUMBER OF PLANTS > 100 TONS PER YEAR									3	4	3	5	1
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									1815.1	3321.4	12212.1	27190.8	378.2

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STATE: 30 MONTANA COUNTY: 089 SANDERS CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00003	THOMPSON RIVER LUMBER		2421	144	11	631.3	5270.8	6	95	8.5	1.8	0.0	0.3	0.6
0003	P.O. BOX 279													
	THOMPSON FALLS	598730000												
00004	CROWN PACIFIC INLAND LUMBER, L.P.		2421	144	11	626.2	5271.7	14	95	48.2	55.3	2.0	9.4	19.3
0004	1/2 MILE SE OF THOMPSON FALLS													
	THOMPSON FALLS	59873												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									56.7	57.1	2.0	9.7	19.9

STATE: 30 MONTANA COUNTY: 091 SHERIDAN CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	KOCH - CLEAR LAKE STATION	4922	143	13	551.0	5358.1	3	95	0.3	19.8	0.5	22.9	0.3
0001	SECTION 17, T33N, R58E												
	DAGMAR 59219												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								0.3	19.8	0.5	22.9	0.3

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STATE: 30 MONTANA COUNTY: 093 SILVER BOW CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00006	RITEWAY ASPHALT		2951	142	12	379.9	5093.8	1	92	0.2	0.0	0.0	0.0	0.0
0006	700 CENTENNIAL AVE.													
	BUTTE	59701												
00007	BUTTE-SILVER BOW ASPHALT	PLANT	1442	142	12	381.7	5094.8	3	95	3.6	0.5	1.0	0.5	0.4
0007	500 CENTENNIAL AVENUE													
	BUTTE	59701												
00008	GILMAN EXCAVATING		2951	142	12	385.3	5096.3	2	94	0.5	0.0	0.0	0.0	0.0
0008	1488 CONTINENTAL													
	BUTTE	59701												
00011	BEAL MOUNTAIN MINE		1041	142	12	354.5	5091.5	18	95	73.3	146.0	12.8	118.5	11.3
0011	1800 FAIRMONT ROAD													
	ANACONDA	597110000												
00005	RHONE-POULENC BASIC CHEMICALS CO.		2819	142	12	370.2	5094.5	28	95	95.6	23.8	263.4	194.4	1.2
0005	NEAR RAMSAY													
	SILVER BOW	59750												
00009	MONTANA RESOURCES		1021	142	12	383.2	5096.6	21	95	1061.8	358.2	44.1	396.2	41.1
0009	600 SHIELDS AVENUE													
	BUTTE	59701												
00013	MSE - WETO SITE		8733	142	12	382.3	5087.1	5	95	0.0	0.0	0.0	0.6	0.0
0013	BUTTE INDUSTRIAL PARK													
	BUTTE	59702												
00012	BLANKENSHIP CONSTRUCTION		1611	142	12	381.0	5098.0	2	94	1.5	0.0	0.1	0.0	0.0
0012	P.O. BOX 460													
	BUTTE	59703												
	NUMBER OF PLANTS > 100 TONS PER YEAR									1	2	1	3	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									1236.5	528.5	321.4	710.2	54.0

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STATE: 30 MONTANA COUNTY: 095 STILLWATER CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00002	STILLWATER MINING CO. SMELTER		3339	140	12	637.5	5054.8	1	95	0.0	0.0	2.3	0.2	0.0
0002	P.O. BOX 1209													
	COLUMBUS	59019												
00001	STILLWATER MINING COMPANY		1099	140	12	588.0	5026.0	11	95	58.4	61.9	7.8	89.7	7.5
0001	HC 54, BOX 365													
	NYE	59061												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									58.4	61.9	10.1	89.9	7.5

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STATE: 30 MONTANA COUNTY: 099 TETON CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00002	BUSCH AGRICULTURAL - FAIRFIELD ELE	5153	141	12	426.1	5273.5	3	95	18.8	0.0	0.0	0.0	0.0
0002	233 WEST MAIN P.O. BOX 697												
	FAIRFIELD 59436												
00003	BUSCH AGRICULTURAL - FAIRFIELD SEE	5153	141	12	425.0	5274.0	6	95	1.6	0.0	0.0	0.0	0.0
0003	NE1/4 NE1/4 SEC. 33 T22N R3W												
	FAIRFIELD 59436												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								20.4	0.0	0.0	0.0	0.0

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STATE: 30 MONTANA COUNTY: 101 TOOLE CO

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00005	BEARPAW GATHERING SYSTEMS, INC.	4922	141	12	441.8	5390.5	3	95	0.0	2.6	0.0	4.2	0.5
0005	8 MILES EAST OF KEVIN												
	KEVIN 59454												
00004	MPC - SHELBY-KEVIN SUNBURST STATIO	4922	141	12	446.0	5382.5	2	95	0.0	14.5	0.0	10.6	13.9
0004	8 MILES NE OF SHELBY												
	SHELBY 59474												
00010	MPC - NORTH MOULTON FIELD, STATION	4922	141	12	416.0	5424.7	6	95	0.0	2.5	0.0	33.6	9.1
0010	SE1/4, SEC8, T37N, R4W												
	CUT BANK 59427												
00007	SHELBY GATHERING PARTNERS	4922	141	12	439.1	5379.8	2	95	0.0	0.9	0.0	1.2	1.3
0007	SE1/4, SEC35, T33N, R2W												
	SHELBY 59474												
00008	MPC - TELSTAD FIELD, STATION 033	4922	141	12	457.2	5371.0	11	95	0.0	19.8	16.0	122.2	42.7
0008	NE1/4, SEC34, T32N, R1E												
	SHELBY 59474												
00009	MPC - SOUTH MOULTON FIELD, STATION	4922	141	12	416.0	5422.5	3	95	0.0	0.2	0.0	1.7	0.0
0009	NE1/4, SEC20, T37N, R4W												
	CUT BANK 59427												
00011	BASIN EXPLORATION, INC.	4922	141	12	442.2	5390.6	2	95	0.0	25.7	0.0	25.9	5.1
0011	SE1/4, S30, T34N, R1W												
	OILMONT 59466												
00015	FERDIG OIL COMPANY	4922	141	0	0.0	0.0	7	95	0.2	5.0	0.0	52.9	24.5
0015	NW1/4 NW1/4 SEC 28, T35N, R4W												
	FERDIG 59437												
	NUMBER OF PLANTS > 100 TONS PER YEAR								0	0	0	1	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)								0.2	71.2	16.0	252.3	97.1

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 105 VALLEY CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	WILLISTON BASIN - FORT PECK STATIO		4922	143	13	393.2	5323.9	6	95	0.7	24.2	0.0	80.5	25.9
0001	23 MDU ROAD													
	NASHUA	592489802												
00002	WILLISTON BASIN - SACO		4922	143	13	333.6	5367.8	11	95	1.1	120.1	0.0	326.4	84.7
0002	SACO COMPRESSOR STATION													
	SACO	59261												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	1	0	1	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									1.8	144.3	0.0	406.9	110.6

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 107 WHEATLAND CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	J.D. LUMBER		2421	140	12	595.5	5168.0	5	95	26.4	0.0	0.0	0.0	0.0
0001	P.O. BOX 206													
	JUDITH GAP	59453												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									26.4	0.0	0.0	0.0	0.0

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 109 WIBAUX CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00001	SWEPI - S. PINE GCF		1311	143	13	535.4	5174.3	2	95	0.0	0.0	25.0	0.4	15.2
0001	SEC. 10, T11N, R57E													
	BAKER	593131324												
00002	SWEPI - S. PINE ENGINE		1311	143	13	536.6	5170.9	1	95	0.4	33.6	3.1	7.9	3.9
0002	SEC. 23, T11N, R57E													
	BAKER	59313												
	NUMBER OF PLANTS > 100 TONS PER YEAR									0	0	0	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									0.4	33.6	28.1	8.3	19.1

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 111 YELLOWSTONE CO

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
00023	YELLOWSTONE ENERGY LIMITED PARTNER		4911	140	12	700.1	5076.3	2	95	2.9	99.2	811.2	137.4	11.6
0023	2215 N. FRONTAGE ROAD													
	BILLINGS	591017307												
00018	SCHESSLER READY MIX		3273	140	12	673.1	5059.3	1	94	0.8	0.0	0.0	0.0	0.0
0018	603 RAILROAD STREET													
	LAUREL	59044												
00002	JTL GROUP, INC.		2951	140	12	686.0	5069.0	3	95	4.7	0.0	0.0	0.0	0.0
0002	SHILO RD & KING AVE WEST													
	BILLINGS	59107												
00007	WESTERN SUGAR		2063	140	12	694.6	5070.2	13	95	48.6	212.3	485.9	359.5	17.2
0007	3020 STATE AVE													
	BILLINGS	59101												
00010	EMPIRE SAND & GRAVEL COMPANY		1611	140	12	701.0	5081.5	2	95	2.2	0.0	2.2	0.2	0.0
0010	PIONEER ROAD, 5 MILES NE BLGS													
	BILLINGS	59103												
00011	CONOCO		2911	140	12	695.0	5072.7	34	95	121.4	160.9	958.6	699.6	989.5
0011	401 S 23RD ST													
	BILLINGS	59103												
00012	CENEX		2911	140	12	674.0	5058.0	51	95	135.5	134.7	2865.1	892.3	1295.1
0012	US 212, SOUTH OF LAUREL													
	LAUREL	59044												
00013	EXXON CO USA		2911	140	12	699.5	5076.5	19	95	251.5	91.3	8737.8	736.1	1082.3
0013	700 EXXON ROAD													
	BILLINGS	591031163												
00014	MONTANA SULFUR & CHEMICAL		2819	140	12	700.0	5076.0	6	95	1.2	287.5	3422.2	11.0	0.2
0014	EAST FRONTAGE ROAD													
	BILLINGS	59103												
00015	MPC - CORETTE/BIRD POWER PLANTS		4911	140	12	695.9	5071.9	3	95	99.9	211.1	6439.1	3467.1	24.4
0015	PO BOX 30495													
	BILLINGS	59107												
00006	CEREAL FOOD PROCESSORS, INC.		2041	140	12	693.3	5071.8	8	95	15.7	0.0	0.0	0.2	0.0
0006	3601 FIRST AVE. SOUTH													
	BILLINGS	59101												
00024	EXXON BULK TERMINAL		5171	140	12	700.0	5076.0	3	95	0.0	0.0	0.0	0.0	28.8
0024	607 EXXON ROAD													
	BILLINGS	59101												
	NUMBER OF PLANTS > 100 TONS PER YEAR									3	5	7	6	3
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									684.4	1197.0	23722.1	6303.4	3449.1

STATE: 30 MONTANA COUNTY: 777 PORTABLE SOURCE

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
02541	A-1 PAVING, INC.	2951	142	0	0.0	0.0	5	95	4.9	0.4	0.1	1.8	0.0
2541	88 CMI UVM 1200 DRUM MIX #110												
	PORTABLE 59901												
02542	GILMAN EXCAVATING	2951	142	0	0.0	0.0	3	94	0.4	7.2	4.4	28.2	2.8
2542	79 BG DM-65 8'X30' #DM65X247												
	PORTABLE 59701												
02543	GILMAN EXCAVATING	2951	142	0	0.0	0.0	3	94	2.9	8.4	7.1	28.4	3.8
2543	83 BG DM-71 9'X36' #DM71X403												
	PORTABLE 59701												
02545	GILMAN EXCAVATING	1442	142	0	0.0	0.0	3	94	14.1	9.4	2.9	43.6	2.9
2545	88 CR 22 X 48 JAW #40915												
	1986 EL JAY 54" CONE #58 59701												
02551	WEAVER GRAVEL INC.	3531	142	0	0.0	0.0	3	95	0.4	0.7	0.2	3.5	0.2
2551	65 AW 101SE ROLL 20X30 #464959												
	PORTABLE 59912												
02552	JOHNSON BROTHERS CONTRACTING	1442	142	0	0.0	0.0	2	95	0.0	0.0	0.0	0.2	0.0
2552	50 PNR 35S, #35SH4-JAW												
	PORTABLE 59802												
02559	FIKE CRUSHING	1442	142	0	0.0	0.0	3	95	6.5	2.4	0.7	11.2	0.7
2559	78 EL JAY 36" #04-CV												
	PORTABLE 58341												
02561	RIVERSIDE CONTRACTING	2951	142	0	0.0	0.0	4	95	1.3	4.0	21.9	6.6	2.4
2561	83 CEDAR RAPIDS 8828 #ADM28852												
	PORTABLE 59801												
02564	BLAHNIK CONSTRUCTION, INC.	2951	142	0	0.0	0.0	3	95	3.3	1.8	0.5	8.6	0.5
2564	88 ADM S1B6026P DRUM #DM17388												
	PORTABLE 59840												
02566	EMPIRE SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	42.4	10.9	3.3	50.4	3.4
2566	88 BARMAC, 1995 NORDBERG												
	CRUSHERS & ASSORTED EQUI 591031215												
02569	PRINCE, INC.	2951	142	0	0.0	0.0	3	95	0.9	9.3	0.5	8.3	0.0
2569	86 BOEING 300R #654-4												
	PORTABLE 593010368												
02570	FIGGINS SAND & GRAVEL,INC	3531	142	0	0.0	0.0	2	95	5.3	0.0	0.0	0.0	0.0
2570	63 CR 10X36 JAW CRUSHER #24668												
	1985 BARMAC MII IMPACT C 59715												
02574	MIDLAND O'LEARY, INC. (JTL GROUP)	2951	142	0	0.0	0.0	2	94	4.1	2.0	4.0	1.9	1.5
2574	89 BMG 30R20 DRUM MIX #689												
	PORTABLE 59107												
02576	PRINCE, INC.	1442	142	0	0.0	0.0	3	95	3.1	6.0	1.8	27.9	1.9
2576	69 EL JAY 54" CONE #41FO678												
	PORTABLE 59327												
02577	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	4.4	0.9	0.2	4.4	0.3
2577	86 PIONEER 20 X 36 #KNWN-3306												
	PORTABLE 58601												
02581	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	10.0	2.4	0.7	11.4	0.7
2581	78 KUEKEN20X36 90 #909687 1367												

STATE: 30 MONTANA COUNTY: 777 PORTABLE SOURCE

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
02584	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	3	95	5.4	1.6	0.4	7.5	0.5
2584	86 AC MODEJ 500 #C-52545 PORTABLE 58601												
02585	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	36.0	3.6	1.1	16.6	1.1
2585	86 AC MODEJ 500 #53009 PORTABLE 59330												
02587	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	23.0	1.8	0.5	8.4	0.5
2587	88 BARMAC 39"9600 #CP31462888 PORTABLE 58601												
02590	HK CONTRACTORS, INC.	2951	142	0	0.0	0.0	3	95	1.1	0.0	0.1	0.9	0.0
2590	77 BG DM-65 #DM65X168 PORTABLE 83405												
02596	H.L. OSTERMILLER CONSTRUCTION INC.	2951	142	12	698.5	5080.5	3	95	0.2	0.1	0.0	0.7	0.0
2596	88 ACS/AEDCO 6628 #3514-6628 PORTABLE 59105												
02597	FRANCIS MUGGLI, INC.	3531	142	0	0.0	0.0	3	95	5.3	0.8	0.2	3.7	0.2
2597	46 DIAMOND JAW #2207 1947 SYMONS 4' STANDARD 59230												
02598	CENTENNIAL CONCRETE, INC.	1442	142	0	0.0	0.0	3	95	1.0	1.2	0.3	5.6	0.3
2598	52 CR MASTER TANDEM #12768 40" X 22" ROLL CRUSHER 59701												
02599	MICKELSON ROCK PRODUCTS	1442	142	0	0.0	0.0	2	95	0.8	0.0	0.0	0.0	0.0
2599	78 DIAMOND JAW/ROLL CRUSHER PORTABLE 59802												
02605	SHUMAKER TRUCKING & EXCAV	1442	142	0	0.0	0.0	3	95	0.1	0.0	0.0	0.2	0.0
2605	85 HUMBOLT WEDAG IMP #46201281 PORTABLE 59403												
02615	LHC, INC.	1442	142	0	0.0	0.0	3	95	0.5	0.0	0.0	0.0	0.0
2615	1958 UNIVERSAL GRAVEL CRUSHER PORTABLE, S#526X42 59904												
02620	BLAHNIK CONSTRUCTION, INC	1442	142	0	0.0	0.0	5	95	0.8	0.0	0.0	0.2	0.0
2620	74 PNR 50 VE ROLL #50-VE-216 PORTABLE 59840												
02623	SCHELLINGER CONSTRUCTION CO	1442	142	0	0.0	0.0	3	95	5.1	5.8	1.7	26.7	1.8
2623	76 PNR 50 VE DUPLEX #50-VE-217 PORTABLE/GRAVEL CRUSHER 59912												
02624	SCHELLINGER CONSTRUCTION	1442	142	0	0.0	0.0	3	95	4.0	6.1	1.8	28.3	1.9
2624	76 PNR 50 VE DUPLES #50-VE-240 PORTABLE 59912												
02626	PIONEER CONCRETE AND FUEL, INC.	1442	142	0	0.0	0.0	2	95	0.2	0.0	0.0	0.2	0.0
2626	92 PNR JAW CRUSHER #KNWN-3911 82 & 86 EL JAY CONE CRUS 59702												
02629	PONDERA COUNTY	1442	142	0	0.0	0.0	2	95	1.0	0.0	0.0	0.0	0.0
2629	47 PNR 4022 ROLL TYPE #V42-446 1968 KOLBERG J.D. 488 #2 59425												
02641	CENTURY CONSTRUCTION	2951	142	0	0.0	0.0	3	95	205.6	1.1	13.3	5.1	0.2
2641	85 ADM #S7228P #DM-123-85												

STATE: 30 MONTANA COUNTY: 777 PORTABLE SOURCE

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
02652	PURCELL CONSTRUCTION	1442	142	0	0.0	0.0	3	95	1.4	0.3	0.1	1.6	0.1
2652	80 CR 443 COMMNDR #1745425640 PORTABLE 59068												
02658	RIVERSIDE CONTRACTING	1442	142	0	0.0	0.0	4	95	1.1	3.1	16.6	5.3	1.8
2658	83 CR 8828 DRUM DRYER #38848 PORTABLE 59801												
02659	FIGGINS SAND & GRAVEL,INC	3531	142	0	0.0	0.0	2	95	0.4	0.0	0.0	0.0	0.0
2659	69 PNR 1036 JAW #CP-40-69 PORTABLE 59715												
02660	LONE MOUNTAIN ASPHALT	2951	142	0	0.0	0.0	3	95	2.4	0.6	0.3	2.4	0.2
2660	60 STANSTEEL TM-15B #472 PORTABLE 59105												
02661	KEELAND & SONS GRAVEL	1442	142	0	0.0	0.0	3	94	0.3	0.1	0.0	0.4	0.0
2661	47 PIONEER 10X36 JAW #CP40-100 40 X 22 ROLL CRUSHER CP4 59101												
02673	HELENA SAND & GRAVEL	1442	142	0	0.0	0.0	3	95	1.3	0.0	0.0	0.0	0.0
2673	1994 PIONEER CRUSHER AND 1990 TORGENSON IMPACT CR 59635												
02675	CONDA MINING, INC.	1442	142	0	0.0	0.0	3	95	0.5	0.5	0.1	2.3	0.1
2675	1988 UNIVERSAL IMPACT PORTABLE 59807												
02678	KEM READY MIX	3531	142	0	0.0	0.0	2	95	2.1	0.0	0.0	0.0	0.0
2678	59 CR COMMANDER #19141 1947 UNIVERSAL RBSL #201 59061												
02680	A.M. WELLES	1442	142	0	0.0	0.0	7	95	2.9	0.7	0.2	3.2	0.2
2680	79 PNR 50VE#50VE234 DUPLEX JAW PORTABLE 59745												
02681	PARK COUNTY	3531	142	0	0.0	0.0	2	94	0.2	0.0	0.0	0.0	0.0
2681	78 TEJSMITH 12X36 JAW #1355H PORTABLE 59047												
02684	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	18.4	1.4	0.4	6.8	0.4
2684	86 BARMAC IMPACT #584-82-6 PORTABLE 58601												
02685	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	2	94	0.1	0.0	0.0	0.0	0.0
2685	85 SPOKANE IMPACT #66-8155 PORTABLE 58601												
02690	H.L. OSTERMILLER CONSTRUCTION	1442	142	12	698.5	5080.5	3	95	1.8	0.2	0.0	1.1	0.0
2690	52 CR MASTER TANDEM #13013 PORTABLE 59105												
02693	WIBAUX COUNTY	3531	142	0	0.0	0.0	3	95	0.5	0.0	0.0	0.2	0.0
2693	60 PNR JAW CRUSHER #CP-18-1 PORTABLE 59353												
02695	BILL DENGEL CONSTRUCTION	1442	142	0	0.0	0.0	3	95	5.2	1.1	0.3	5.1	0.3
2695	90 EL JAY, #34 C1690 1991 EL JAY, #54-6-16-10 59457												
02696	CASINO CREEK CONCRETE INC.	1442	142	0	0.0	0.0	2	95	1.4	0.0	0.0	0.0	0.0
2696	50 DIAMOND JAW CRUSHER												

STATE: 30 MONTANA COUNTY: 777 PORTABLE SOURCE

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
02715	PORTABLE, INC.	1442	142	0	0.0	0.0	3	95	0.7	0.0	0.0	0.0	0.0
2715	1989 TORGERSON IMPACT CRUSHER												
	PORTABLE 59715												
02735	BLAHNIK CONSTRUCTION, INC.	2951	142	0	0.0	0.0	3	95	1.6	4.3	1.3	19.9	1.3
2735	92 ASPH DRUM B834-P #DM 249-92												
	PORTABLE 59840												
02746	T-BEND CONSTRUCTION	2951	142	0	0.0	0.0	3	95	1.6	3.8	1.1	17.5	1.2
2746	1965 CEDAR RAPIDS ASPHALT												
	PORTABLE 59937												
02748	ROBERT V. BURGGRAF COMPANY	2951	142	0	0.0	0.0	3	95	4.2	0.4	0.1	2.1	0.1
2748	72 BG DM-75 SERIAL # DM75X101												
	PORTABLE 83404												
00181	DEER LODGE COUNTY	2951	142	0	0.0	0.0	2	94	0.1	0.0	0.0	0.0	0.0
0181	? BARBER GREENE 840												
	PORTABLE 59711												
01662	BALTRUSCH, INC.	2951	142	0	0.0	0.0	2	94	26.4	0.1	0.3	0.1	0.1
1662	STNDRD STL HOT PLT SE5000 #531												
	PORTABLE 59501												
02170	FRANZ CONSTRUCTION COMPANY	2951	142	0	0.0	0.0	3	95	2.4	0.0	0.7	0.3	0.0
2170	? PIONEER BATCH PLANT #4B201												
	PORTABLE 59270												
02523	GALLATIN COUNTY RD. DEPT.	1442	142	0	0.0	0.0	2	95	1.5	0.0	0.0	0.0	0.0
2523	PORTABLE CRUSHER												
	PORTABLE 59715												
02526	CENTURY CONSTRUCTION	2951	142	0	0.0	0.0	2	95	2.1	0.2	0.0	0.7	0.0
2526	56 PNR 6' X 40' #375-DDC-120												
	PORTABLE 59457												
02527	CENTURY CONSTRUCTION	2951	142	0	0.0	0.0	2	95	0.6	0.1	0.0	0.6	0.0
2527	86 AEDCO 6628 #2726												
	PORTABLE 59457												
02528	KONITZ CONTRACTING, INC.	1442	142	0	0.0	0.0	3	95	8.7	4.1	1.2	19.2	1.3
2528	58 PNR SHOPBUILT DUP #4030P871												
	PORTABLE 59457												
02529	KONITZ CONTRACTING, INC.	1442	142	0	0.0	0.0	3	95	11.4	4.0	1.2	18.7	1.2
2529	65 SYMONS CONE CRUSHER #40559												
	PORTABLE 59457												
02533	TREASURE STATE CONSTRUCTION	1442	142	0	0.0	0.0	3	95	0.9	3.0	0.9	14.0	0.9
2533	86 EL JAY 1313 CONE CRUSHER												
	POLSON 598064027												
02534	EMPIRE SAND & GRAVEL CO.	2951	142	0	0.0	0.0	3	95	4.8	9.6	112.5	35.1	6.1
2534	80 BOEING MS-400 #569-400												
	PORTABLE 59103												
02535	EMPIRE SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	23.1	4.1	1.2	18.9	1.3
2535	TWO-1995 NORDBERG CONE CRUSHER												
	ASSORTED EQUIPMENT PORT 591031215												
02537	MONTGOMERY CONSTRUCTION	3531	142	0	0.0	0.0	3	95	0.9	0.4	0.1	2.1	0.1
2537	58 CR 443 COMMNDR DUPLX #17918												

STATE: 30 MONTANA COUNTY: 777 PORTABLE SOURCE

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
02751	CONDA MINING, INC.	1442	142	0	0.0	0.0	3	95	0.2	0.2	0.0	1.1	0.0
2751	76 PNR 35X46 JAW S/N 3546-139												
	PORTABLE 59807												
02586	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	19.8	1.1	0.3	5.1	0.3
2586	86 AC MODEJ 500 #C53011												
	PORTABLE 58601												
02601	MALTA READY MIX	1442	142	0	0.0	0.0	3	95	0.2	0.0	0.0	0.0	0.0
2601	56 PNR 10X24 JAW #T-1274												
	PORTABLE 59538												
02665	MINERAL COUNTY ROAD DEPT.	2951	142	0	0.0	0.0	3	95	0.1	0.0	0.0	0.2	0.0
2665	69 WYLIE 3140 BATCH #16274												
	PORTABLE 59872												
02689	MC ELROY & WILKEN, INC.	3531	142	0	0.0	0.0	2	95	6.4	0.0	0.0	0.0	0.0
2689	86 KHD HMBLT WEDAG B #4620128												
	1988 BAROMAC IMPACT, MOD 59901												
02703	N & R BUNN GRAVEL	3531	142	0	0.0	0.0	3	95	2.2	0.1	0.0	0.7	0.0
2703	58 CR 443 JAW & ROLL #19291												
	PORTABLE 59457												
02730	FISHER SAND & GRAVEL	3273	142	0	0.0	0.0	6	95	0.6	0.0	0.0	0.0	0.0
2730	1992 MCNEILUS READY MIX PLANT												
	PORTABLE 99999												
02826	THOMPSON EXCAVATING	1442	142	0	0.0	0.0	3	95	0.5	0.0	0.0	0.0	0.0
2826	1994 SHAKER SCREEN CONVEYOR												
	ASSOCIATED EQUIPMENT 59487												
02775	RIVERSIDE CONTRACTING INC.	2951	142	0	0.0	0.0	3	95	1.3	2.6	12.0	6.2	1.7
2775	1993 BITUMA UTRA DRUM 400												
	PORTABLE 59801												
02788	JTL-BELGRADE	1442	142	0	0.0	0.0	2	95	10.1	0.0	0.0	0.0	0.0
2788	1989 IMPACT												
	PORTABLE/'85 V SHAFT IMP 59715												
02774	CENTENNIAL CONCRETE, INC.	1442	142	0	0.0	0.0	3	95	0.4	0.2	0.0	0.9	0.0
2774	1964 CEDAR RAPIDS JAW												
	PORTABLE 59701												
02776	CLARK FORK CONCRETE	1442	142	0	0.0	0.0	2	94	0.5	0.0	0.0	0.0	0.0
2776	PORTABLE CRUSHERS												
	THOMPSON FALLS 59873												
02793	BARRETTS MINERALS INC.	1442	142	0	0.0	0.0	3	95	1.4	0.2	0.0	1.1	0.0
2793	1955 PIONEER JAW CR W/GRIZZLY												
	PORTABLE 59725												
02795	CLARK FORK CONCRETE	1771	142	0	0.0	0.0	2	94	1.0	0.0	0.0	0.0	0.0
2795	1963 ROSS UNI PLANT SN 7538												
	PORTABLE 59873												
02799	CENTRAL PRE-MIX CONCRETE CO	1771	142	0	0.0	0.0	2	95	0.1	0.0	0.0	0.0	0.0
2799	1971 REX MODELJS-111-30RM												
	PORTABLE SATELLITE JUN 99220												
02800	KOONTZ CONSTRUCTION INC	1442	142	0	0.0	0.0	2	94	0.4	0.0	0.0	0.0	0.0
2800	1971 KUE-KEN MODEL 81 JAW CRSH												

STATE: 30 MONTANA COUNTY: 777 PORTABLE SOURCE

PLANT	NAME AND ADDRESS	SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
02777	A-1 PAVING DBA A-1 CONCRETE	1442	142	0	0.0	0.0	4	95	1371.7	0.0	0.0	0.0	0.0
2777	1993 MCNEILUS READY MIX												
	PORTABLE 59901												
02789	BLANKENSHIP CONSTRUCTION	1442	142	0	0.0	0.0	2	94	0.1	0.0	0.0	0.0	0.0
2789	1940 CEDAR RAPIDS JAW CRUSHER												
	PORTABLE 59703												
02837	AM WELLES	1442	142	0	0.0	0.0	7	95	2.5	0.4	0.1	1.8	0.1
2837	PORTABLE GRAVEL CRUSHER												
	PORTABLE 59745												
02839	CENTURY CONSTRUCTION COMPANY	2951	142	0	0.0	0.0	4	95	0.2	0.1	1.3	27.8	6.2
2839	1994 AL MIX ASPHALT PLANT												
	S/N 977-2 PORTABLE 59457												
02898	HUTFLES STONE & ASPHALT	2951	142	0	0.0	0.0	5	95	0.7	0.0	0.0	0.2	0.0
2898	1972 WYLIE 3150 BATCH MIX												
	ASPHALT PLANT 59725												
02716	FLATHEAD COUNTY ROAD DEPARTMENT	1442	142	0	0.0	0.0	3	95	0.3	0.6	0.1	2.8	0.1
2716	1973 PIONEER DUPLEX												
	#303R-P-122 599021102												
02872	JENSEN PAVING	2951	142	0	0.0	0.0	3	95	2.4	22708.5	0.1	0.1	0.0
2872	1994 CMI DRUM MIX ASPHALT PLNT												
	PORTABLE 59801												
02848	FISHER SAND & GRAVEL COMPANY	1442	142	0	0.0	0.0	4	95	9.2	0.3	0.1	1.6	0.1
2848	1992 KUE KEN JAW CRUSHER												
	PORTABLE 58601												
02857	FISHER SAND & GRAVEL	1442	142	0	0.0	0.0	4	95	6.4	0.2	0.0	0.9	0.0
2857	1980 SPOKANE IMPACT CRUSHER												
	PORTABLE 58602												
02890	HELENA SAND & GRAVEL	1442	142	0	0.0	0.0	3	95	0.9	0.0	0.0	0.0	0.0
2890	1987 BARMAC CRUSHER												
	PORTABLE 59635												
02855	FISHER SAND & GRAVEL COMPANY	1442	142	0	0.0	0.0	4	95	1.9	0.1	0.0	0.4	0.0
2855	92 ALLIS CHALMERS CONE CRSHR												
	PORTABLE 59602												
02847	FISHER SAND & GRAVEL COMPANY	1442	142	0	0.0	0.0	4	95	3.4	0.3	0.0	1.4	0.0
2847	1990 KUE KEN JAW CRUSHER												
	PORTABLE 58601												
02856	FISHER SAND & GRAVEL COMPANY	1442	142	0	0.0	0.0	4	95	4.6	0.5	0.1	2.5	0.1
2856	1980 KUE KEN CONE IMPACT CRSHR												
	PORTABLE 58602												
02851	HUDAK EXCAVATION & CONSTRUCTION	1442	142	0	0.0	0.0	2	95	0.0	0.1	0.0	0.4	0.0
2851	'50 CEDAR RAPIDS JAW & ROLL CR												
	PORTABLE 59068												
02844	VOLK SAND & GRAVEL INC.	1442	142	0	0.0	0.0	4	95	8.2	0.0	0.0	0.0	0.0
2844	'61 ALLIS CHALMERS HYDRA CONE												
	PORTABLE 59403												
02870	L.S. JENSEN	1442	142	11	0.0	0.0	3	95	0.7	0.0	0.0	0.0	0.0
2870	'92 EL JAY AND 1991 EL JAY												

DATE : 08/14/96 AFS COUNTY POINT SOURCE SUMMARY PGM: AFP649

STATE: 30 MONTANA COUNTY: 777 PORTABLE SOURCE

PLANT	NAME AND ADDRESS		SIC	AQC	UTZ	UTMH	UTMV	TOTAL # OF POINTS	YR	PM10	CO	SO2	NO2	VOC
02895	BLAHNICK CONSTRUCTION		1442	142	0	0.0	0.0	6	95	0.6	0.0	0.0	0.2	0.0
2895	1994 EL-JAY CONE CRUSHER PORTABLE	59840												
02893	TREASURE STATE CONSTRUCTION		1442	142	0	0.0	0.0	4	95	0.9	3.0	0.9	14.0	0.9
2893	1993 EL-JAY CRUSHER PORTABLE	59860												
02892	TREASURE STATE CONSTRUCTION		1442	142	0	0.0	0.0	4	95	0.9	3.0	0.9	14.0	0.9
2892	1991 EL-JAY CRUSHER PORTABLE	59860												
02876	ABC GRAVEL INC		1442	142	0	0.0	0.0	4	95	0.2	0.0	0.0	0.2	0.0
2876	1958 UNIV JAY/ROLL CRUSHER PORTABLE	59323												
	NUMBER OF PLANTS > 100 TONS PER YEAR									2	1	1	0	0
	TOTAL COUNTY POINT SOURCE EMISSIONS (TONS/YR)									1986.1	22851.5	222.2	601.7	54.7

APPENDIX C: HISTORICAL DATA SUMMARIES

DATE 96/08/27
AMP450

EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)
AIR QUALITY SUBSYSTEM
QUICK LOOK REPORT
MONTANA

LEAD (12128) UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	MT	CITY	COUNTY	ADDRESS	REP YR	ORG	#OBS	----QUARTERLY ARITH MEANS---- 1ST	2ND	3RD	4TH	MEANS >1.5	MAX VALUES 1ST	2ND	METH
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	81	001	25	6.20	4.03?			1	16.98	13.91	092
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	83	001	55			4.78	5.26	2	16.75	13.13	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	84	001	115	5.77	2.74	5.62	6.83	4	19.27	17.12	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	85	001	115	5.46	3.30	2.26	2.26	4	17.08	12.99	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	86	001	116	3.17	1.77	2.34	5.16	4	19.49	14.25	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	87	001	116	3.44	2.35	3.10	4.11	4	12.75	11.54	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	88	001	121	2.71	2.99	4.74	3.43	4	18.10	15.70	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	89	001	89	2.32	2.64	3.98	3.06	4	17.32	14.22	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	90	001	210	2.11	2.55	2.78	2.75	4	9.35	8.79	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	91	001	221	2.15	2.05	3.64	3.51	4	14.54	12.08	000
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	92	001	149	4.10	2.18	2.85	3.99	4	15.80	12.26	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	93	001	162	5.04	1.94	3.46	3.25	4	25.50	20.40	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	94	001	161	5.61	4.78	6.69	4.22	4	32.60	29.67	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	95	001	180	4.79	2.52	3.57	3.82	4	26.81	15.28	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	96	001	13	2.17				1	4.96	4.04	057
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	81	001	29			.40?	2.27	1	5.59	5.11	092
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	82	001	25	7.62?	1.59?	2.64?	1.96	1	7.62	6.18	000
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	83	001	62	3.28	3.20?	3.39	3.07	3	8.39	7.29	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	84	001	116	4.13	1.82	3.39	4.63	4	17.73	12.88	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	85	001	115	3.20	2.17	1.87	1.42	3	10.08	9.05	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	86	001	121	2.10	1.14	1.87	3.70	3	11.67	11.43	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	87	001	117	3.45	1.92	1.94	2.76	4	16.42	13.30	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	88	001	121	2.14	2.68	3.40	2.72	4	14.44	10.08	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	89	001	90	1.73	1.68	2.69	1.87	4	14.14	5.80	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	90	001	60	2.48	2.01	2.07	1.94	4	5.92	5.47	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	91	001	55	2.16	1.12?	2.34	2.22	3	7.01	5.02	000
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	92	001	51	3.20	1.74	1.76	2.79?	3	7.10	6.88	057
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	93	001	25	1.95	2.04?			1	6.19	5.39	057
30-049-0722	1	2	EAST HELENA	L&C	DARTMAN RANCH, NOR	82	001	26	2.97?	2.32?	2.00?	1.23	0	3.73	3.35	000
30-049-0722	1	2	EAST HELENA	L&C	DARTMAN RANCH, NOR	83	001	15	1.56	1.84?			1	3.19	2.97	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	83	001	42		1.03?	2.96	2.58	2	9.80	7.99	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	84	001	59	3.19	1.27	3.10	3.23	3	10.96	8.34	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	85	001	58	2.73	1.54	.61	1.27	1	7.14	6.74	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	86	001	60	1.60	1.18	1.50	2.94	2	7.19	6.18	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	87	001	59	2.48	1.28	2.06	2.85	3	7.25	6.87	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	88	001	55	1.95	2.05	2.49	1.82	4	13.25	5.70	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	89	001	59	1.20	.58	2.09	1.60	2	5.37	4.62	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	90	001	206	1.24	1.29	1.24	1.05	0	5.35	3.93	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	91	001	125	.99	.58	1.69	2.50?	1	6.79	5.36	000
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	92	001	48	2.08	.36?	.79?	1.40	1	6.48	5.34	057

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

DATE 96/08/27
AMP450

EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)
AIR QUALITY SUBSYSTEM
QUICK LOOK REPORT
MONTANA

LEAD (12128) UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	MT	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	----QUARTERLY ARITH MEANS---- 1ST	2ND	3RD	4TH	MEANS >1.5	MAX VALUES 1ST	2ND	METH
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	81	001	25	6.20	4.03?			1	16.98	13.91	092
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	83	001	55			4.78	5.26	2	16.75	13.13	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	84	001	115	5.77	2.74	5.62	6.83	4	19.27	17.12	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	85	001	115	5.46	3.30	2.26	2.26	4	17.08	12.99	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	86	001	116	3.17	1.77	2.34	5.16	4	19.49	14.25	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	87	001	116	3.44	2.35	3.10	4.11	4	12.75	11.54	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	88	001	121	2.71	2.99	4.74	3.43	4	18.10	15.70	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	89	001	89	2.32	2.64	3.98	3.06	4	17.32	14.22	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	90	001	210	2.11	2.55	2.78	2.75	4	9.35	8.79	090
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	91	001	221	2.15	2.05	3.64	3.51	4	14.54	12.08	000
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	92	001	149	4.10	2.18	2.85	3.99	4	15.80	12.26	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	93	001	162	5.04	1.94	3.46	3.25	4	25.50	20.40	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	94	001	161	5.61	4.78	6.69	4.22	4	32.60	29.67	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	95	001	180	4.79	2.52	3.57	3.82	4	26.81	15.28	057
30-049-0714	1	2	EAST HELENA	L&C	FIREHALL,CORNER PA	96	001	13	2.17				1	4.96	4.04	057
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	81	001	29			.40?	2.27	1	5.59	5.11	092
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	82	001	25	7.62?	1.59?	2.64?	1.96	1	7.62	6.18	000
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	83	001	62	3.28	3.20?	3.39	3.07	3	8.39	7.29	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	84	001	116	4.13	1.82	3.39	4.63	4	17.73	12.88	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	85	001	115	3.20	2.17	1.87	1.42	3	10.08	9.05	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	86	001	121	2.10	1.14	1.87	3.70	3	11.67	11.43	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	87	001	117	3.45	1.92	1.94	2.76	4	16.42	13.30	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	88	001	121	2.14	2.68	3.40	2.72	4	14.44	10.08	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	89	001	90	1.73	1.68	2.69	1.87	4	14.14	5.80	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	90	001	60	2.48	2.01	2.07	1.94	4	5.92	5.47	090
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	91	001	55	2.16	1.12?	2.34	2.22	3	7.01	5.02	000
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	92	001	51	3.20	1.74	1.76	2.79?	3	7.10	6.88	057
30-049-0719	1	2	EAST HELENA	L&C	HADFIELD, 101 WEST	93	001	25	1.95	2.04?			1	6.19	5.39	057
30-049-0722	1	2	EAST HELENA	L&C	DARTMAN RANCH, NOR	82	001	26	2.97?	2.32?	2.00?	1.23	0	3.73	3.35	000
30-049-0722	1	2	EAST HELENA	L&C	DARTMAN RANCH, NOR	83	001	15	1.56	1.84?			1	3.19	2.97	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	83	001	42		1.03?	2.96	2.58	2	9.80	7.99	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	84	001	59	3.19	1.27	3.10	3.23	3	10.96	8.34	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	85	001	58	2.73	1.54	.61	1.27	1	7.14	6.74	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	86	001	60	1.60	1.18	1.50	2.94	2	7.19	6.18	090
30-049-0724	1	0	EAST HELENA	L&C	DARTMAN FIELD, NOR	87	001	59	2.48	1.28	2.06	2.85	3	7.25	6.87	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	88	001	55	1.95	2.05	2.49	1.82	4	13.25	5.70	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	89	001	59	1.20	.58	2.09	1.60	2	5.37	4.62	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	90	001	206	1.24	1.29	1.24	1.05	0	5.35	3.93	090
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	91	001	125	.99	.58	1.69	2.50?	1	6.79	5.36	000
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	92	001	48	2.08	.36?	.79?	1.40	1	6.48	5.34	057

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

LEAD (12128)

UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	MT	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	----QUARTERLY ARITH MEANS---- 1ST	2ND	3RD	4TH	MEANS >1.5	MAX VALUES 1ST	2ND	METH
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	93	001	55	1.90	1.00	1.48	1.69	2	6.96	5.47	057
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	94	001	57	1.51	1.10	2.50	1.77	2	5.89	5.34	057
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	95	001	57	2.19	1.20	1.56	1.90	3	7.47	6.51	057
30-049-0724	1	2	EAST HELENA	L&C	DARTMAN FIELD, NOR	96	001	4	.91?				0	1.71	1.30	057
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	89	001	9				1.91?	0	6.08	3.25	090
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	90	001	209	1.37	1.12	.74	1.26	0	20.57	5.67	090
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	91	001	200	.96	1.08	.72	1.08	0	4.93	4.92	000
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	92	001	59	1.44	2.35	.99	1.20	1	10.30	5.86	057
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	93	001	58	1.48	1.18	.68	.95?	0	6.03	4.47	057
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	94	001	55	1.19	1.47	.91	1.39	0	7.58	4.71	057
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	95	001	58	1.42	.61	1.03	1.67	1	10.11	4.30	057
30-049-0726	1	2	EAST HELENA	L&C	OLD RAILROAD,HWAY	96	001	4	1.74?				0	2.80	1.76	057
30-049-0727	1	2	EAST HELENA	L&C	PRICKLY PEAR CRK,	93	001	5				2.72?	0	4.11	3.01	057
30-049-0727	1	2	EAST HELENA	L&C	PRICKLY PEAR CRK,	94	001	53	4.40	3.81	3.25?	4.25	3	17.60	14.19	057
30-049-0727	1	2	EAST HELENA	L&C	PRICKLY PEAR CRK,	95	001	58	5.37	2.06	3.31	3.86	4	15.16	14.87	057
30-049-0727	1	2	EAST HELENA	L&C	PRICKLY PEAR CRK,	96	001	4	1.77?				0	4.57	1.94	057
30-049-1002	1	3	EAST HELENA	L&C	HASTIE RESIDENCE,	80	000	54	2.61	1.84	2.75	2.72	4	8.07	7.42	092
30-049-1002	1	3	EAST HELENA	L&C	HASTIE RESIDENCE,	81	001	52	3.19	2.37?	.32?	2.51	2	13.70	10.70	092
30-049-1002	1	3	EAST HELENA	L&C	HASTIE RESIDENCE,	82	001	26	1.94?	1.46?	2.19?	2.23	1	5.20	4.08	000
30-049-1002	1	3	EAST HELENA	L&C	HASTIE RESIDENCE,	83	001	82	3.12	2.51	2.93	3.00	4	10.01	9.09	090
30-049-1002	1	3	EAST HELENA	L&C	HASTIE RESIDENCE,	84	001	107	3.26	1.72	2.66	3.87	4	12.89	11.09	090
30-049-1002	1	3	EAST HELENA	L&C	HASTIE RESIDENCE,	85	001	109	2.32	2.00	1.42	1.76	3	7.64	6.72	090

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

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LEAD (12128)

METHODS:	CODE	COLLECTION METHOD	ANALYSIS METHOD
	000	MULTIPLE METHODS	MULTIPLE METHODS
	057	HI-VOL	EMISSION SPECTRA ICAP
	090	HI-VOL	EMISSION SPECTRA ICAP
	092	HI-VOL	ATOMIC ABSORPTION

→

EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)
AIR QUALITY SUBSYSTEM
QUICK LOOK REPORT
MONTANA

CARBON MONOXIDE (42101) UNITS: 007 PPM

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 1-HR 1ST	MAX 1-HR 2ND	OBS> 35	MAX 8-HR 1ST	MAX 8-HR 2ND	OBS> 9	METH
30-013-0021	1	2	GREAT FALLS	CASCADE	GREAT FALLS FEDERAL, 242	80	003	4981	13.3	12.2	0	10.1	7.7	1	011
30-013-0021	1	2	GREAT FALLS	CASCADE	GREAT FALLS FEDERAL, 242	81	003	6412	10.5	8.7	0	7.8	7.4	0	011
30-013-0021	1	2	GREAT FALLS	CASCADE	GREAT FALLS FEDERAL, 242	82	003	5496	9.7	8.8	0	5.4	4.1	0	011
30-013-0021	1	2	GREAT FALLS	CASCADE	GREAT FALLS FEDERAL, 242	83	003	4780	13.0	10.1	0	5.8	5.8	0	011
30-013-1023	1	2	GREAT FALLS	CASCADE	PARDIS CLINIC, 826 10TH	83	003	1242	20.3	16.9	0	10.3	10.0	2	011
30-013-1023	1	2	GREAT FALLS	CASCADE	PARDIS CLINIC, 826 10TH	84	003	7822	18.8	18.0	0	14.5	8.8	1	011
30-013-1023	1	2	GREAT FALLS	CASCADE	PARDIS CLINIC, 826 10TH	85	003	7817	11.1	10.8	0	8.2	8.1	0	011
30-013-1023	1	2	GREAT FALLS	CASCADE	PARDIS CLINIC, 826 10TH	86	003	8678	23.7	20.6	0	10.1	9.3	1	011
30-013-1023	1	2	GREAT FALLS	CASCADE	PARDIS CLINIC, 826 10TH	87	003	7824	22.4	19.0	0	11.9	11.0	3	011
30-013-1023	1	2	GREAT FALLS	CASCADE	PARDIS CLINIC, 826 10TH	88	003	8418	19.2	14.6	0	10.9	9.2	1	011
30-013-1023	1	2	GREAT FALLS	CASCADE	PARDIS CLINIC, 826 10TH	89	003	6848	15.7	14.5	0	8.6	7.6	0	011
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	89	003	1248	9.1	9.0	0	6.0	5.8	0	011
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	90	003	8220	11.0	9.0	0	5.8	5.6	0	011
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	91	003	8371	15.3	14.6	0	10.4	6.6	1	000
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	92	003	8231	13.2	11.0	0	6.6	5.8	0	066
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	93	003	8602	10.6	10.2	0	8.2	6.9	0	066
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	94	003	8415	11.5	11.3	0	7.4	4.8	0	000
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	95	003	7938	13.9	13.7	0	7.9	6.2	0	051
30-013-1025	1	2	GREAT FALLS	CASCADE	SKYWAY CONOCO, 700-10TH	96	003	3396	21.9	19.1	0	8.5	4.4	0	000
30-029-0045	1	2	KALISPELL	FLATHEAD	IDAHO & MAIN, KSPL JCT U	95	063	1126	9.7	9.2	0	7.6	6.5	0	051
30-029-0045	1	2	KALISPELL	FLATHEAD	IDAHO & MAIN, KSPL JCT U	96	063	3513	17.4	13.4	0	11.4	11.1	2	051
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	80	001	7602	17.3	17.3	0	15.2	14.7	15	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	81	001	6238	12.3	12.3	0	11.7	9.8	2	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	82	001	5799	19.9	17.8	0	15.1	12.0	4	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	83	001	3136	19.8	17.3	0	14.6	12.6	7	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	86	004	4899	24.5	17.1	0	10.1	8.9	1	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	87	004	7199	21.6	16.1	0	10.7	10.6	4	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	88	004	7574	12.9	12.0	0	10.2	9.6	2	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	89	004	8557	14.9	14.4	0	12.5	9.7	3	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	90	004	3857	12.9	12.5	0	9.7	8.1	1	011
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	91	004	4885	13.7	13.5	0	10.3	9.9	5	000
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	92	004	4342	11.3	11.3	0	9.2	8.9	0	051
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	93	004	8251	8.6	8.6	0	7.7	7.1	0	051
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	94	004	8524	8.5	7.9	0	7.5	6.9	0	051
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	95	004	8452	8.9	8.5	0	7.8	6.6	0	051
30-063-0005	1	2	MISSOULA	MISSOULA	MALFUNCTION JCT, SOUTH,	96	004	3233	6.7	6.7	0	5.8	5.6	0	051
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	81	000	3353	14.3	11.7	0	8.5	7.5	0	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	82	000	4080	13.4	11.3	0	9.2	8.4	0	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	83	000	1312	15.1	14.5	0	9.4	9.3	0	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	84	000	8280	16.5	15.0	0	13.3	9.6	2	011

CARBON MONOXIDE (42101) UNITS: 007 PPM

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 1-HR 1ST	MAX 1-HR 2ND	OBS> 35	MAX 8-HR 1ST	MAX 8-HR 2ND	OBS> 9	METH
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	85	000	3737	14.9	12.6	0	11.1	9.9	3	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	86	004	4212	11.8	11.4	0	8.9	8.1	0	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	87	004	4071	22.6	20.9	0	10.9	7.9	1	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	88	004	4346	11.5	11.1	0	8.1	6.9	0	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	89	004	2629	10.8	10.2	0	8.5	7.1	0	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	90	004	3661	8.3	8.1	0	5.5	5.4	0	011
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHBURN	91	004	2144	8.4	8.3	0	6.2	5.9	0	011
30-111-0061	1	2	BILLINGS	YELLOWSTONE	METRA PARKING LOT,6TH AV	80	001	1790	11.1	9.5	0	5.4	5.0	0	011
30-111-0061	1	2	BILLINGS	YELLOWSTONE	METRA PARKING LOT,6TH AV	81	001	6052	43.2	22.5	1	8.6	7.8	0	011
30-111-0061	1	2	BILLINGS	YELLOWSTONE	METRA PARKING LOT,6TH AV	82	001	6443	17.5	14.3	0	7.3	6.6	0	011
30-111-0061	1	2	BILLINGS	YELLOWSTONE	METRA PARKING LOT,6TH AV	83	001	5135	23.9	20.0	0	9.8	7.9	1	011
30-111-0061	1	2	BILLINGS	YELLOWSTONE	METRA PARKING LOT,6TH AV	84	002	3106	11.1	8.7	0	7.1	5.8	0	011
30-111-0061	1	2	BILLINGS	YELLOWSTONE	METRA PARKING LOT,6TH AV	85	002	7000	10.5	9.5	0	4.5	4.4	0	011
30-111-0061	1	2	BILLINGS	YELLOWSTONE	METRA PARKING LOT,6TH AV	86	002	2142	9.6	9.0	0	5.7	5.2	0	011
30-111-0074	1	2	BILLINGS	YELLOWSTONE	METRA-6TH & EXPOSITION S	88	002	1301	11.2	10.4	0	6.1	5.7	0	011
30-111-0075	1	2	BILLINGS	YELLOWSTONE	METRA,EXPO DR & 4TH AVE	88	002	2030	14.2	12.4	0	7.0	6.8	0	011
30-111-0075	1	2	BILLINGS	YELLOWSTONE	METRA,EXPO DR & 4TH AVE	89	002	6569	12.7	11.6	0	7.1	5.7	0	011
30-111-0075	1	2	BILLINGS	YELLOWSTONE	METRA,EXPO DR & 4TH AVE	90	002	8472	14.4	12.8	0	5.8	5.5	0	011
30-111-0075	1	2	BILLINGS	YELLOWSTONE	METRA,EXPO DR & 4TH AVE	91	002	8637	16.1	12.4	0	5.8	5.6	0	000
30-111-0075	1	2	BILLINGS	YELLOWSTONE	METRA,EXPO DR & 4TH AVE	92	002	7335	11.8	10.1	0	5.4	5.1	0	051
30-111-0078	1	2	BILLINGS	YELLOWSTONE	DIAMOND PARKING LOT, 315	92	002	525	10.5	9.3	0	6.5	5.2	0	051
30-111-0078	1	2	BILLINGS	YELLOWSTONE	DIAMOND PARKING LOT, 315	93	002	7938	16.6	10.6	0	7.1	6.7	0	051
30-111-0078	1	2	BILLINGS	YELLOWSTONE	DIAMOND PARKING LOT, 315	94	002	2278	21.5	15.1	0	8.1	6.2	0	051
30-111-0079	1	2	BILLINGS	YELLOWSTONE	MT OLIVE LUTHERAN CHURCH	92	002	595	12.0	8.6	0	5.5	5.3	0	051
30-111-0079	1	2	BILLINGS	YELLOWSTONE	MT OLIVE LUTHERAN CHURCH	93	002	8204	10.6	10.4	0	6.4	6.3	0	051
30-111-0079	1	2	BILLINGS	YELLOWSTONE	MT OLIVE LUTHERAN CHURCH	94	002	8579	10.4	9.5	0	7.6	6.4	0	051
30-111-0079	1	2	BILLINGS	YELLOWSTONE	MT OLIVE LUTHERAN CHURCH	95	002	8385	12.1	10.4	0	6.6	6.1	0	051
30-111-0079	1	2	BILLINGS	YELLOWSTONE	MT OLIVE LUTHERAN CHURCH	96	002	3874	9.7	7.6	0	5.0	4.5	0	051
30-111-0081	1	2	BILLINGS	YELLOWSTONE	NORWEST, 130 NORTH 27TH	94	002	5958	12.6	10.5	0	5.4	5.2	0	051
30-111-0081	1	2	BILLINGS	YELLOWSTONE	NORWEST, 130 NORTH 27TH	95	002	8403	16.5	13.6	0	7.1	6.6	0	051
30-111-0081	1	2	BILLINGS	YELLOWSTONE	NORWEST, 130 NORTH 27TH	96	002	3970	8.1	6.5	0	4.7	3.8	0	051

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CARBON MONOXIDE (42101)

METHODS:

CODE	COLLECTION METHOD	ANALYSIS METHOD
000	MULTIPLE METHODS	MULTIPLE METHODS
011	INSTRUMENTAL	NONDISPERSIVE INFRA-RED
051	INSTRUMENTAL	NON DISPERSIVE INFRA-RED
066	INSTSRUMENTAL	NON DISPERSIVE INFRA-RED

DATE 96/08/27
AMP450

EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)
AIR QUALITY SUBSYSTEM
QUICK LOOK REPORT
MONTANA

SULFUR DIOXIDE (42401)

UNITS: 007 PPM

SITE ID	POC	MT	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 24-HR 1ST	MAX 24-HR 2ND	OBS > STD	MAX 3-HR 1ST	MAX 3-HR 2ND	OBS > STD	MAX 1-HR 1ST	MAX 1-HR 2ND	ARIT MEAN	METH
30-013-1016	1	3	GREAT FALLS	CASCADE	KIWANIS PARK	80	001	2149	.007	.006	0	.023	.020	0	.026	.023	.002?	020
30-013-2000	1	4	GREAT FALLS	CASCADE	WIRE MILL RD/MT R	94	072	1108	.021	.020	0	.071	.064	0	.133	.097	.009?	077
30-013-2000	1	4	GREAT FALLS	CASCADE	WIRE MILL RD/MT R	95	072	5767	.020	.016	0	.085	.067	0	.145	.093	.003?	077
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	86	013	8654	.044	.043	0	.163	.157	0	.250	.240	.007	020
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	87	013	8510	.060	.058	0	.207	.127	0	.330	.250	.015	020
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	88	013	8568	.060	.058	0	.200	.197	0	.350	.340	.010	020
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	89	013	8601	.068	.060	0	.300	.260	0	.680	.520	.004	020
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	90	013	8760	.044	.042	0	.250	.183	0	.370	.370	.005	022
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	91	013	8760	.029	.028	0	.153	.120	0	.290	.220	.004	022
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	92	013	1603	.033	.021	0	.083	.070	0	.116	.099	.005?	022
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	93	013	7553	.039	.025	0	.108	.095	0	.220	.170	.004	022
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	94	013	8264	.038	.036	0	.197	.156	0	.458	.398	.007	022
30-043-0903	4	4	EAST HELENA	JEFFERSON	MICROWAVE SITE	95	013	6229	.070	.053	0	.356	.220	0	.490	.352	.008?	000
30-043-0906	1	3	EAST HELENA	JEFFERSON	ASARCO-HIGHWAY 51	86	013	743	.024	.021	0	.100	.097	0	.240	.130	.011?	022
30-043-0906	1	3	EAST HELENA	JEFFERSON	ASARCO-HIGHWAY 51	87	013	8423	.360	.096	1	.923	.847	3	1.090	1.010	.009	022
30-043-0906	1	3	EAST HELENA	JEFFERSON	ASARCO-HIGHWAY 51	88	013	8689	.060	.045	0	.233	.177	0	.430	.340	.005	022
30-043-0906	1	3	EAST HELENA	JEFFERSON	ASARCO-HIGHWAY 51	89	013	5000	.026	.023	0	.167	.157	0	.440	.290	.003?	022
30-043-0908	1	4	EAST HELENA	JEFFERSON	ASARCO-ASH GROVE	90	013	8760	.031	.029	0	.183	.150	0	.340	.290	.003	022
30-043-0908	1	4	EAST HELENA	JEFFERSON	ASARCO-ASH GROVE	91	013	8760	.031	.020	0	.113	.100	0	.260	.170	.002	022
30-043-0908	1	4	EAST HELENA	JEFFERSON	ASARCO-ASH GROVE	92	013	1645	.023	.022	0	.077	.053	0	.099	.088	.004?	022
30-043-0908	1	4	EAST HELENA	JEFFERSON	ASARCO-ASH GROVE	93	013	7939	.025	.025	0	.086	.072	0	.104	.104	.003	022
30-043-0908	1	4	EAST HELENA	JEFFERSON	ASARCO-ASH GROVE	94	013	8237	.023	.018	0	.101	.081	0	.212	.212	.004	022
30-043-0908	1	4	EAST HELENA	JEFFERSON	ASARCO-ASH GROVE	95	013	6148	.039	.026	0	.220	.154	0	.299	.276	.005?	000
30-043-0909	1	4	EAST HELENA	JEFFERSON	ASARCO-TOP OF MIC	93	013	6188	.026	.019	0	.115	.079	0	.237	.132	.003?	022
30-043-0909	1	4	EAST HELENA	JEFFERSON	ASARCO-TOP OF MIC	94	013	7860	.048	.040	0	.237	.144	0	.392	.344	.005	022
30-043-0909	1	4	EAST HELENA	JEFFERSON	ASARCO-TOP OF MIC	95	013	6177	.047	.043	0	.227	.152	0	.308	.218	.007?	000
30-043-0910	1	4	EAST HELENA	JEFFERSON #3	ASARCO-MCCLELLAN	93	013	6192	.022	.011	0	.087	.064	0	.244	.130	.003?	092
30-043-0910	1	4	EAST HELENA	JEFFERSON #3	ASARCO-MCCLELLAN	94	013	5291	.052	.041	0	.107	.103	0	.254	.207	.006?	092
30-043-0910	1	4	EAST HELENA	JEFFERSON #3	ASARCO-MCCLELLAN	95	013	6139	.069	.058	0	.173	.112	0	.304	.243	.005?	092
30-043-0911	1	4	EAST HELENA	JEFFERSON #4	ASARCO-MCCLELLAN	93	013	6271	.017	.017	0	.061	.057	0	.138	.094	.002?	022
30-043-0911	1	4	EAST HELENA	JEFFERSON #4	ASARCO-MCCLELLAN	94	013	8189	.066	.046	0	.211	.199	0	.374	.325	.007	022
30-043-0911	1	4	EAST HELENA	JEFFERSON #4	ASARCO-MCCLELLAN	95	013	6092	.107	.056	0	.247	.207	0	.536	.257	.008?	000
30-043-0912	1	4	EAST HELENA	JEFFERSON #5	ASARCO-MCCLELLAN	93	013	5770	.018	.017	0	.055	.044	0	.138	.088	.002?	022
30-043-0912	1	4	EAST HELENA	JEFFERSON #5	ASARCO-MCCLELLAN	94	013	8081	.038	.037	0	.150	.147	0	.313	.241	.006	022
30-043-0912	1	4	EAST HELENA	JEFFERSON #5	ASARCO-MCCLELLAN	95	013	6189	.044	.027	0	.104	.096	0	.140	.119	.010?	000

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SULFUR DIOXIDE (42401) MONTANA UNITS: 007 PPM

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	REP YR	REP ORG	#OBS	MAX 24-HR 1ST	MAX 24-HR 2ND	OBS > STD	MAX 3-HR 1ST	MAX 3-HR 2ND	OBS > STD	MAX 1-HR 1ST	MAX 1-HR 2ND	ARIT MEAN	METH
30-043-0913	1	4	EAST HELENA	JEFFERSON #6	ASARCO-MCCLELLAN	93	013	6154	.023	.016	0	.073	.058	0	.122	.118	.003?	092
30-043-0913	1	4	EAST HELENA	JEFFERSON #6	ASARCO-MCCLELLAN	94	013	8138	.078	.052	0	.202	.189	0	.379	.373	.006	092
30-043-0913	1	4	EAST HELENA	JEFFERSON #6	ASARCO-MCCLELLAN	95	013	6133	.113	.080	0	.223	.191	0	.292	.283	.008?	092
30-043-0914	1	4	EAST HELENA	JEFFERSON #7	ASARCO-MCCLELLAN	93	013	4549	.027	.024	0	.071	.064	0	.176	.159	.004?	092
30-043-0914	1	4	EAST HELENA	JEFFERSON #7	ASARCO-MCCLELLAN	94	013	7487	.087	.058	0	.210	.167	0	1.002	.487	.006	092
30-043-0914	1	4	EAST HELENA	JEFFERSON #7	ASARCO-MCCLELLAN	95	013	6186	.065	.041	0	.383	.138	0	.701	.389	.005?	092
30-043-0915	1	4	EAST HELENA	JEFFERSON #8	ASARCO-MCCLELLAN	93	013	6196	.031	.027	0	.062	.054	0	.131	.119	.004?	092
30-043-0915	1	4	EAST HELENA	JEFFERSON #8	ASARCO-MCCLELLAN	94	013	8266	.046	.036	0	.190	.177	0	.341	.276	.003	092
30-043-0915	1	4	EAST HELENA	JEFFERSON #8	ASARCO-MCCLELLAN	95	013	6194	.059	.025	0	.154	.089	0	.211	.184	.003?	092
30-043-0916	1	4	EAST HELENA	JEFFERSON #9	ASARCO-MCCLELLAN	93	013	6183	.034	.029	0	.102	.092	0	.213	.168	.003?	092
30-043-0916	1	4	EAST HELENA	JEFFERSON #9	ASARCO-MCCLELLAN	94	013	7922	.063	.041	0	.179	.169	0	.415	.280	.005	092
30-043-0916	1	4	EAST HELENA	JEFFERSON #9	ASARCO-MCCLELLAN	95	013	6182	.059	.038	0	.113	.096	0	.135	.130	.004?	092
30-049-0008	1	2	EAST HELENA	L&C	A&W EAST HELENA	80	001	6374	.043	.043	0	.257	.158	0	.504	.334	.009?	020
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	86	013	8618	.043	.041	0	.187	.140	0	.460	.190	.007	020
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	87	013	8453	.086	.085	0	.413	.323	0	.780	.530	.008	020
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	88	013	8343	.065	.050	0	.277	.247	0	.620	.490	.007	020
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	89	013	8418	.104	.076	0	.277	.260	0	.830	.690	.007	020
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	90	013	8760	.076	.061	0	.364	.360	0	.970	.750	.008	022
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	91	013	8760	.066	.065	0	.283	.280	0	.550	.520	.007	022
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	92	013	1496	.043	.033	0	.165	.075	0	.248	.165	.005?	022
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	93	013	7275	.041	.029	0	.097	.094	0	.138	.138	.004	022
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	94	013	8253	.055	.042	0	.232	.154	0	.358	.338	.008	022
30-049-0701	1	4	EAST HELENA	L&C	ASARCO-KLEFFNER R	95	013	6060	.057	.041	0	.213	.147	0	.307	.275	.009?	000
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	86	013	8404	.122	.068	0	.713	.447	1	.820	.760	.008	020
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	87	013	8283	.115	.052	0	.380	.363	0	1.010	.780	.010	020
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	88	013	8056	.108	.092	0	.447	.380	0	.650	.620	.010	020
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	89	013	8542	.121	.096	0	.397	.360	0	.870	.730	.007	020
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	90	013	8760	.068	.065	0	.443	.320	0	.750	.710	.008	022
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	91	013	8760	.058	.054	0	.407	.283	0	.640	.570	.006	022
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	92	013	1392	.031	.026	0	.073	.066	0	.192	.187	.005?	022
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	93	013	7362	.055	.042	0	.202	.147	0	.489	.385	.006	022
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	94	013	8303	.072	.047	0	.231	.202	0	.502	.499	.008	022
30-049-0702	1	4	EAST HELENA	L&C	ASARCO-WATER TANK	95	013	6224	.044	.041	0	.221	.176	0	.336	.313	.008?	000
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	86	013	8495	.223	.031	1	.887	.467	1	.980	.910	.008	020
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	87	013	8522	.080	.066	0	.207	.177	0	.380	.280	.009	020
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	88	013	8565	.041	.040	0	.117	.110	0	.210	.210	.005	020
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	89	013	8353	.045	.044	0	.207	.170	0	.480	.270	.005	020
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	90	013	8760	.054	.046	0	.200	.177	0	.500	.470	.007	022
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	91	013	8760	.045	.041	0	.233	.230	0	.620	.390	.006	022

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SULFUR DIOXIDE (42401) UNITS: 007 PPM

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 24-HR 1ST	MAX 24-HR 2ND	OBS > STD	MAX 3-HR 1ST	MAX 3-HR 2ND	OBS > STD	MAX 1-HR 1ST	MAX 1-HR 2ND	ARIT MEAN	METH
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	92	013	1452	.123	.108	0	.279	.193	0	.380	.369	.014?	022
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	93	013	7568	.050	.048	0	.156	.090	0	.324	.182	.006	022
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	94	013	8158	.077	.055	0	.200	.171	0	.440	.327	.011	022
30-049-0703	1	4	EAST HELENA	L&C	ASARCO-KENNEDY PK	95	013	6192	.046	.037	0	.096	.091	0	.277	.236	.011?	000
30-049-0711	1	4	EAST HELENA	L&C	ASARCO-EAST, EAST	86	013	8683	.068	.039	0	.320	.123	0	.530	.280	.008	020
30-049-0711	1	4	EAST HELENA	L&C	ASARCO-EAST, EAST	87	013	8469	.045	.041	0	.163	.157	0	.200	.180	.005	020
30-049-0711	1	4	EAST HELENA	L&C	ASARCO-EAST, EAST	88	013	8160	.131	.103	0	.147	.147	0	.210	.200	.007	020
30-049-0711	1	4	EAST HELENA	L&C	ASARCO-EAST, EAST	89	013	8019	.038	.036	0	.173	.153	0	.480	.330	.007	020
30-049-0711	1	4	EAST HELENA	L&C	ASARCO-EAST, EAST	90	013	8760	.050	.046	0	.203	.137	0	.400	.270	.007	022
30-049-0711	1	4	EAST HELENA	L&C	ASARCO-EAST, EAST	91	013	8760	.034	.023	0	.210	.100	0	.580	.210	.005	022
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	85	026	6923	.029	.020	0	.062	.047	0	.070	.060	.005	020
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	86	026	7734	.025	.017	0	.046	.045	0	.051	.049	.004	020
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	87	026	7765	.025	.024	0	.094	.038	0	.281	.150	.004	020
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	88	026	6931	.034	.025	0	.111	.051	0	.251	.069	.004	020
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	89	026	7363	.023	.023	0	.043	.043	0	.067	.057	.003	020
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	90	026	5054	.014	.014	0	.048	.028	0	.250	.143	.002?	020
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	91	026	8151	.018	.016	0	.037	.032	0	.068	.058	.003	020
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	92	026	8261	.017	.014	0	.030	.029	0	.043	.042	.003	009
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	93	026	7916	.024	.015	0	.051	.035	0	.057	.050	.003	009
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	94	026	7936	.013	.012	0	.030	.029	0	.051	.049	.003	009
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE	95	026	7511	.014	.014	0	.043	.032	0	.044	.043	.003	009
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	81	026	2035	.007	.006	0	.016	.013	0	.020	.018	.002?	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	82	026	5332	.012	.011	0	.017	.015	0	.028	.024	.002?	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	85	026	7264	.014	.012	0	.074	.021	0	.217	.106	.003	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	86	026	7690	.008	.008	0	.017	.015	0	.024	.018	.002	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	87	026	7790	.007	.007	0	.017	.015	0	.030	.026	.002	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	88	026	7111	.009	.008	0	.016	.013	0	.063	.023	.002	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	89	026	7562	.010	.010	0	.066	.021	0	.136	.061	.002	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	90	026	6927	.011	.007	0	.013	.013	0	.183	.032	.002	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	91	026	7874	.010	.009	0	.019	.015	0	.065	.034	.002	020
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	92	026	8108	.008	.006	0	.020	.020	0	.028	.026	.002	009
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	93	026	8279	.009	.005	0	.015	.013	0	.023	.018	.002	009
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	94	026	8248	.009	.007	0	.017	.016	0	.031	.028	.002	009
30-087-0701	1	4	COLSTRIP	ROSEBUD	MPC #1,HIWAY 39 I	95	026	8305	.005	.004	0	.017	.014	0	.031	.025	.001	009
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	81	026	4437	.014	.006	0	.040	.023	0	.101	.033	.002?	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	82	026	5990	.008	.008	0	.011	.010	0	.030	.013	.001?	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	85	026	7655	.006	.005	0	.016	.013	0	.024	.021	.002	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	86	026	7571	.008	.008	0	.020	.020	0	.030	.029	.002	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	87	026	6914	.016	.013	0	.095	.089	0	.282	.266	.002	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	88	026	6938	.017	.014	0	.057	.034	0	.084	.072	.002	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	89	026	7712	.014	.009	0	.085	.019	0	.127	.126	.002	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	90	026	7783	.006	.005	0	.015	.012	0	.016	.016	.002	020
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	91	026	7715	.007	.007	0	.019	.016	0	.041	.019	.002	020

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SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 24-HR 1ST	MAX 24-HR 2ND	OBS > STD	MAX 3-HR 1ST	MAX 3-HR 2ND	OBS > STD	MAX 1-HR 1ST	MAX 1-HR 2ND	ARIT MEAN	METH
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	92	026	7734	.006	.006	0	.011	.010	0	.022	.019	.002	009
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	93	026	7899	.008	.008	0	.015	.012	0	.022	.018	.002	009
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	94	026	8050	.009	.009	0	.018	.015	0	.020	.020	.002	009
30-087-0702	1	4	COLSTRIP	ROSEBUD	MPC #2, 5&6 POND	95	026	7913	.009	.009	0	.014	.012	0	.024	.024	.001	009
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	80	026	7088	.005	.004	0	.013	.012	0	.035	.025	.001	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	81	026	7394	.015	.014	0	.026	.019	0	.040	.038	.002	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	82	026	5953	.009	.006	0	.031	.014	0	.048	.035	.002?	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	85	026	7753	.017	.008	0	.123	.021	0	.345	.028	.002	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	86	026	7736	.018	.006	0	.106	.011	0	.240	.076	.002	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	87	026	7539	.009	.008	0	.013	.012	0	.019	.018	.002	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	88	026	7528	.012	.011	0	.019	.017	0	.028	.025	.003	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	89	026	7611	.007	.006	0	.028	.018	0	.081	.036	.002	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	90	026	7883	.007	.005	0	.013	.012	0	.022	.019	.002	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	91	026	7980	.011	.008	0	.035	.022	0	.052	.032	.002	020
30-087-0704	1	4	COLSTRIP	ROSEBUD	MPC #4, HAWTHORNE	92	026	4015	.007	.006	0	.019	.011	0	.025	.023	.002?	009
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	87	005	720	.158	.085	1	.250	.217	0	.267	.250	.037?	020
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	88	005	8103	.105	.105	0	.226	.197	0	.341	.295	.023	020
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	89	005	8264	.121	.121	0	.293	.278	0	.342	.341	.018	020
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	90	005	8277	.143	.096	0	.226	.219	0	.278	.277	.017	020
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	91	005	8273	.085	.085	0	.196	.137	0	.235	.233	.016	020
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	92	005	8236	.111	.081	0	.163	.150	0	.253	.227	.018	060
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	93	005	8216	.153	.116	1	.311	.265	0	.463	.458	.020	060
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	94	005	8292	.076	.072	0	.161	.141	0	.203	.194	.012	060
30-111-0016	1	4	LAUREL	YELLOWSTONE	BLAQTC - LAUREL	95	005	8273	.083	.067	0	.196	.188	0	.308	.306	.015	060
30-111-0062	1	3	BILLINGS	YELLOWSTONE	TAFT SCHOOL	80	001	2687	.093	.079	0	.315	.255	0	.448	.436	.016?	020
30-111-0062	1	3	BILLINGS	YELLOWSTONE	TAFT SCHOOL	81	001	6693	.095	.051	0	.193	.182	0	.270	.255	.012	020
30-111-0062	1	3	BILLINGS	YELLOWSTONE	TAFT SCHOOL	82	001	5377	.065	.061	0	.200	.180	0	.264	.255	.013?	020
30-111-0062	1	3	BILLINGS	YELLOWSTONE	TAFT SCHOOL	83	001	8293	.177	.123	1	.353	.335	0	.568	.460	.021	020
30-111-0064	1	3	BILLINGS	YELLOWSTONE	N JOHNSON LANE	82	001	178	.031	.027	0	.125	.091	0	.150	.140	.013?	020
30-111-0064	1	3	BILLINGS	YELLOWSTONE	N JOHNSON LANE	83	001	2859	.109	.098	0	.295	.214	0	.458	.392	.023?	020
30-111-0064	1	3	BILLINGS	YELLOWSTONE	N JOHNSON LANE	84	001	5332	.112	.092	0	.448	.273	0	.520	.460	.019?	020
30-111-0064	1	3	BILLINGS	YELLOWSTONE	N JOHNSON LANE	85	001	7289	.131	.119	0	.290	.284	0	.414	.410	.019	020
30-111-0064	1	3	BILLINGS	YELLOWSTONE	N JOHNSON LANE	86	001	4042	.087	.082	0	.260	.249	0	.399	.367	.019?	020
30-111-0065	1	1	BILLINGS	YELLOWSTONE	LOCKWOOD PARK	81	000	2289	.083	.082	0	.178	.172	0	.334	.313	.026?	020
30-111-0065	1	1	BILLINGS	YELLOWSTONE	LOCKWOOD PARK	82	000	8067	.157	.109	1	.467	.452	0	.663	.657	.023	020
30-111-0065	1	1	BILLINGS	YELLOWSTONE	LOCKWOOD PARK	83	000	7916	.117	.099	0	.381	.377	0	.562	.527	.030	020
30-111-0065	1	1	BILLINGS	YELLOWSTONE	LOCKWOOD PARK	84	001	5953	.082	.070	0	.248	.243	0	.550	.400	.024?	020
30-111-0065	1	1	BILLINGS	YELLOWSTONE	LOCKWOOD PARK	85	001	7444	.115	.114	0	.406	.255	0	.494	.439	.022	020
30-111-0065	1	1	BILLINGS	YELLOWSTONE	LOCKWOOD PARK	86	001	8548	.115	.084	0	.296	.282	0	.441	.437	.025	020
30-111-0065	1	1	BILLINGS	YELLOWSTONE	LOCKWOOD PARK	87	001	298	.044	.043	0	.112	.078	0	.186	.143	.033?	020

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

SULFUR DIOXIDE (42401) UNITS: 007 PPM

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 24-HR 1ST	MAX 24-HR 2ND	OBS > STD	MAX 3-HR 1ST	MAX 3-HR 2ND	OBS > STD	MAX 1-HR 1ST	MAX 1-HR 2ND	ARIT MEAN	METH
30-111-0066	1	3	BILLINGS	YELLOWSTONE	COBURN ROAD	81	001	2180	.132	.119	0	.277	.252	0	.410	.365	.042?	020
30-111-0066	1	3	BILLINGS	YELLOWSTONE	COBURN ROAD	82	001	7277	.139	.104	0	.398	.304	0	.541	.409	.027	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	83	001	7857	.190	.124	1	.476	.340	0	.778	.697	.028	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	84	001	4601	.118	.115	0	.300	.205	0	.438	.418	.026?	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	85	001	6427	.142	.115	0	.756	.306	1	.996	.813	.025?	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	86	001	7810	.106	.104	0	.403	.288	0	.603	.529	.027	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	87	001	7258	.119	.099	0	.346	.291	0	.689	.364	.024	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	88	001	7391	.132	.102	0	.324	.253	0	.541	.512	.021	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	89	001	7896	.085	.081	0	.295	.268	0	.506	.479	.022	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	90	001	6953	.062	.055	0	.239	.219	0	.575	.430	.016	020
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	91	001	7829	.082	.070	0	.212	.210	0	.420	.386	.017	000
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	92	001	7850	.106	.103	0	.287	.262	0	.434	.395	.025	077
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	93	001	7915	.145	.108	0	.269	.236	0	.469	.391	.026	077
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	94	001	7735	.088	.074	0	.246	.179	0	.411	.273	.020	077
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	95	001	7780	.099	.079	0	.190	.188	0	.292	.272	.015	077
30-111-0066	1	2	BILLINGS	YELLOWSTONE	COBURN ROAD	96	001	3780	.066	.064	0	.170	.128	0	.214	.191	.012?	077
30-111-0076	1	2	BILLINGS	YELLOWSTONE	PONDEROSA SCHOOL	89	001	1770	.049	.024	0	.073	.066	0	.115	.098	.006?	020
30-111-0076	1	2	BILLINGS	YELLOWSTONE	PONDEROSA SCHOOL	90	001	6841	.039	.036	0	.085	.076	0	.126	.105	.006	020
30-111-0076	1	2	BILLINGS	YELLOWSTONE	PONDEROSA SCHOOL	91	001	7684	.052	.035	0	.119	.102	0	.203	.140	.004	000
30-111-0076	1	2	BILLINGS	YELLOWSTONE	PONDEROSA SCHOOL	92	001	3701	.030	.024	0	.085	.076	0	.139	.124	.005?	077
30-111-0080	1	2	BILLINGS	YELLOWSTONE	SACRIFICE CLIFF	93	001	4890	.076	.073	0	.205	.159	0	.319	.291	.019?	077
30-111-0080	1	2	BILLINGS	YELLOWSTONE	SACRIFICE CLIFF	94	001	7925	.106	.076	0	.216	.184	0	.419	.404	.017	077
30-111-0080	1	2	BILLINGS	YELLOWSTONE	SACRIFICE CLIFF	95	001	8227	.056	.054	0	.300	.130	0	.534	.352	.014	077
30-111-0080	1	2	BILLINGS	YELLOWSTONE	SACRIFICE CLIFF	96	001	3735	.065	.053	0	.248	.213	0	.301	.284	.012?	077
30-111-1009	3	3	LAUREL	YELLOWSTONE	FARM EAST OF CENE	80	001	3330	.172	.130	1	.327	.232	0	.415	.410	.024?	020
30-111-1014	1	3	LAUREL	YELLOWSTONE	LAUREL NEW FARM	80	001	1182	.035	.032	0	.061	.050	0	.090	.081	.012?	020
30-111-1014	1	3	LAUREL	YELLOWSTONE	LAUREL NEW FARM	81	001	5937	.032	.032	0	.098	.091	0	.133	.127	.008?	020
30-111-1014	1	3	LAUREL	YELLOWSTONE	LAUREL NEW FARM	82	001	3616	.036	.027	0	.063	.061	0	.110	.090	.008?	020
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	87	005	578	.043	.036	0	.147	.114	0	.242	.237	.019?	020
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	88	005	7993	.130	.118	0	.319	.273	0	.563	.418	.021	020
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	89	005	8283	.070	.055	0	.224	.204	0	.403	.281	.017	020
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	90	005	8266	.064	.059	0	.250	.245	0	.405	.351	.015	020
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	91	005	8039	.068	.055	0	.198	.196	0	.360	.335	.015	020
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	92	005	8318	.084	.059	0	.231	.226	0	.409	.408	.020	060
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	93	005	8291	.092	.089	0	.246	.232	0	.470	.374	.020	060
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	94	005	8292	.166	.071	1	.619	.402	1	1.248	1.149	.015	060
30-111-1065	1	4	BILLINGS	YELLOWSTONE	BLAQTC - LOCKWOOD	95	005	8105	.087	.053	0	.153	.145	0	.248	.214	.011	060

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

SULFUR DIOXIDE (42401) MONTANA UNITS: 007 PPM

SITE ID	P O C	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 24-HR 1ST	MAX 24-HR 2ND	OBS > STD	MAX 3-HR 1ST	MAX 3-HR 2ND	OBS > STD	MAX 1-HR 1ST	MAX 1-HR 2ND	ARIT MEAN	METH
30-111-2004	1	4	BILLINGS	YELLOWSTONE	BLAQTC - COULSON	87	005	731	.066	.061	0	.246	.180	0	.389	.281	.028?	020
30-111-2004	1	4	BILLINGS	YELLOWSTONE	BLAQTC - COULSON	88	005	8078	.076	.069	0	.211	.199	0	.358	.346	.018	020
30-111-2004	1	4	BILLINGS	YELLOWSTONE	BLAQTC - COULSON	89	005	6674	.134	.075	0	.228	.213	0	.313	.278	.016	020
30-111-2005	1	4	BILLINGS	YELLOWSTONE	BLAQTC-BRICKYARD	89	005	1254	.048	.036	0	.202	.091	0	.339	.171	.017?	020
30-111-2005	1	4	BILLINGS	YELLOWSTONE	BLAQTC-BRICKYARD	90	005	8257	.059	.055	0	.263	.156	0	.458	.287	.014	020
30-111-2005	1	4	BILLINGS	YELLOWSTONE	BLAQTC-BRICKYARD	91	005	8293	.069	.067	0	.257	.198	0	.472	.393	.013	020
30-111-2005	1	4	BILLINGS	YELLOWSTONE	BLAQTC-BRICKYARD	92	005	8285	.090	.082	0	.200	.161	0	.470	.294	.019	060
30-111-2005	1	4	BILLINGS	YELLOWSTONE	BLAQTC-BRICKYARD	93	005	8288	.111	.103	0	.253	.219	0	.392	.368	.017	060
30-111-2005	1	4	BILLINGS	YELLOWSTONE	BLAQTC-BRICKYARD	94	005	8293	.116	.048	0	.471	.207	0	1.077	.324	.014	060
30-111-2005	1	4	BILLINGS	YELLOWSTONE	BLAQTC-BRICKYARD	95	005	7262	.038	.037	0	.104	.099	0	.176	.139	.010	060
30-111-2006	1	4	BILLINGS	YELLOWSTONE	JOHNSON LANE	93	067	978	.087	.060	0	.201	.188	0	.334	.298	.027?	060
30-111-2006	1	4	BILLINGS	YELLOWSTONE	JOHNSON LANE	94	067	8204	.098	.096	0	.462	.304	0	1.030	.403	.015	060
30-111-2006	1	4	BILLINGS	YELLOWSTONE	JOHNSON LANE	95	067	7999	.054	.049	0	.188	.146	0	.223	.219	.011	060
30-111-2007	1	4	BILLINGS	YELLOWSTONE	PINE HILLS	93	067	622	.075	.057	0	.126	.114	0	.230	.192	.033?	060
30-111-2007	1	4	BILLINGS	YELLOWSTONE	PINE HILLS	94	067	7762	.048	.046	0	.155	.096	0	.340	.213	.010	060
30-111-2007	1	4	BILLINGS	YELLOWSTONE	PINE HILLS	95	067	8041	.015	.012	0	.045	.032	0	.083	.063	.003	060

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

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SULFUR DIOXIDE (42401)

METHODS:	CODE	COLLECTION METHOD	ANALYSIS METHOD
	000	MULTIPLE METHODS	MULTIPLE METHODS
	009	INSTRUMENTAL	PULSED FLUORESCENT
	014	INSTRUMENTAL	COULOMETRIC
	020	INSTRUMENTAL	PULSED FLUORESCENT
	022	INSTRUMENTAL	CONDUCTANCE ASARCO
	060	INSTRUMENTAL	PULSED FLUORESCENT
	077	INSTRUMENTAL	FLUORESCENCE DETECTION
	092	ULTRAVIOLET FLUORESCENCE	AUTOMATED ANALYZER

DATE 96/08/27
AMP450

EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)
AIR QUALITY SUBSYSTEM
QUICK LOOK REPORT
MONTANA

PM-10 TOTAL 0-10UM (81102)

UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	PM T	CITY	COUNTY	ADDRESS	YR	REP ORG	NUM OBS	SCHEDULED NUM OBS	% OBS	NUM REQ	MAXIMUM VALUES 1ST	2ND	3RD	4TH	VALS > MEAS	150 EST	WTD ARITH MEAN	METH
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	88	003	27	25	83	45	62	43	34	33	0	0.00	20?	062
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	89	003	54	54	86	123	69	65	60	43	0	0.00	20?	000
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	90	003	58	58	92	123	109	61	59	46	0	0.00	24?	064
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	91	003	58	58	74	123	124	72	56	54	0	0.00	21?	064
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	92	001	108	108	87	124	62	53	53	48	0	0.00	21	064
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	93	001	117	117	95	123	73	61	60	59	0	0.00	21	064
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	94	001	112	112	91	123	53	48	42	41	0	0.00	21	064
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	95	001	103	103	84	123	52	52	47	36	0	0.00	18?	064
30-013-0009	1	2	GRT FALLS	CASCADE	FIRE STATION, 9TH ST	96	001	32	32	52	62	69	59	39	37	0	0.00	31?	064
30-013-0017	1	2	GRT FALLS	CASCADE	DOWNTOWN, 301 2ND AVE	85	003	10	10	100	10	31	18	16	14	0	0.00	14?	052
30-013-0017	1	2	GRT FALLS	CASCADE	DOWNTOWN, 301 2ND AVE	86	003	56	56	100	56	73	71	63	63	0	0.00	30?	052
30-013-0017	1	2	GRT FALLS	CASCADE	DOWNTOWN, 301 2ND AVE	87	003	12	12	100	12	38	34	32	30	0	0.00	22?	052
30-013-0017	2	2	GRT FALLS	CASCADE	DOWNTOWN, 301 2ND AVE	87	003	43	43	68	63	70	66	59	56	0	0.00	26?	064
30-013-0017	2	2	GRT FALLS	CASCADE	DOWNTOWN, 301 2ND AVE	88	003	20	20	63	32	54	37	29	29	0	0.00	22?	064
30-029-0003	1	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	85	001	29	29	100	29	77	76	70	69	0	0.00	40?	052
30-029-0003	1	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	86	001	56	56	100	56	146	115	108	98	0	0.00	52?	052
30-029-0003	1	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	87	001	16	16	100	16	115	103	85	84	0	0.00	64?	052
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	87	001	70	70	90	78	186	163	145	101	2	4.28	46?	064
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	88	001	301	301	94	366	134	125	110	99	0	0.00	36?	064
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	89	001	302	302	83	365	129	86	86	84	0	0.00	29?	000
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	90	001	331	331	91	365	88	77	74	73	0	0.00	23	062
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	91	001	347	347	95	365	88	84	83	80	0	0.00	24	062
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	92	001	229	229	94	243	75	74	66	65	0	0.00	24?	062
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	93	001	114	113	92	121	64	58	50	49	0	0.00	21?	062
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	94	001	105	103	84	121	82	77	70	65	0	0.00	24?	062
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	95	001	117	116	94	121	53	50	48	48	0	0.00	17?	062
30-029-0003	2	2	COL FALLS	FLATHEAD	JR HIGH SCHOOL, 500 4	96	001	45	45	73	60	56	50	42	39	0	0.00	21?	062
30-029-0039	1	2	WHITEFISH	FLATHEAD	WHITEFISH - MARKUS FO	91	001	55	55	71	48	143	128	126	90	0	0.00	42?	064
30-029-0039	1	2	WHITEFISH	FLATHEAD	WHITEFISH - MARKUS FO	92	001	225	223	97	140	333	301	254	220	8	16.18	51?	064
30-029-0039	1	2	WHITEFISH	FLATHEAD	WHITEFISH - MARKUS FO	93	001	262	262	96	272	138	115	91	85	0	0.00	36?	064
30-029-0039	1	2	WHITEFISH	FLATHEAD	WHITEFISH - MARKUS FO	94	001	262	262	96	272	174	170	165	154	3	4.18	47?	064
30-029-0039	1	2	WHITEFISH	FLATHEAD	WHITEFISH - MARKUS FO	95	001	123	123	89	63	140	133	94	89	0	0.00	31?	064
30-029-0039	1	3	WHITEFISH	FLATHEAD	WHITEFISH - MARKUS FO	96	001	16	16	50	32	61	51	45	43	0	0.00	41?	064
30-029-0043	1	2	KALISPELL	FLATHEAD	EVERGREEN FIRESTATION	94	001	28	28	56	35	113	98	69	57	0	0.00	36?	063
30-029-0043	1	2	KALISPELL	FLATHEAD	EVERGREEN FIRESTATION	95	001	92	92	85	93	82	77	76	74	0	0.00	32?	063
30-029-0043	1	2	KALISPELL	FLATHEAD	EVERGREEN FIRESTATION	96	001	39	39	63	59	71	68	65	58	0	0.00	42?	063
30-029-1015	1	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	85	001	20	20	100	20	77	68	68	65	0	0.00	46?	052
30-029-1015	1	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	86	001	57	57	100	57	260	198	159	115	3	19.08	61?	052
30-029-1015	1	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	87	001	18	18	100	18	119	105	92	89	0	0.00	62?	052

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA
EXCEPTIONAL EVENT DATA EXISTS IN AT LEAST ONE OF THE ABOVE SITES BUT IS NOT INCLUDED IN THE SUMMARY CALCULATIONS

PM-10 TOTAL 0-10UM (81102) UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	SCHEDULED NUM OBS	NUM OBS	% OBS	NUM REQ	MAXIMUM VALUES 1ST	2ND	3RD	4TH	VALS MEAS	> 150 EST	WTD ARITH MEAN	METH
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	87	001	112	112	90	124	102	81	75	75	0	0.00	37?	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	88	001	275	275	75	366	154	133	115	109	0	0.00	38?	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	89	001	325	325	89	365	218	167	106	103	2	2.43	34	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	90	001	349	349	96	365	111	109	105	105	0	0.00	33	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	91	001	336	336	92	365	195	185	147	146	2	2.07	36	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	92	001	306	306	96	274	107	102	89	89	0	0.00	32	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	93	001	222	222	97	183	69	63	58	56	0	0.00	28?	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	94	001	105	105	85	122	122	85	78	77	0	0.00	29?	064
30-029-1015	2	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	95	001	84	84	90	63	74	58	55	53	0	0.00	25?	064
30-029-1015	2	3	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC, 2	96	001	16	16	50	32	65	39	33	32	0	0.00	35?	064
30-031-0002	1	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	85	001	6	6	100	6	64	52	41	38	0	0.00	41?	052
30-031-0002	1	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	86	001	32	32	100	32	88	64	64	62	0	0.00	43?	052
30-031-0002	1	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	87	001	16	16	100	16	44	43	39	36	0	0.00	31?	052
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	87	001	34	34	71	48	61	43	41	40	0	0.00	27?	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	88	001	55	55	86	64	92	78	56	55	0	0.00	27	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	89	001	55	55	87	63	135	54	45	37	0	0.00	24	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	90	001	50	50	79	63	99	86	61	51	0	0.00	29?	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	91	001	103	102	83	92	122	108	72	62	0	0.00	26?	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	92	001	118	118	95	125	56	54	50	48	0	0.00	22?	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	93	001	108	108	88	122	58	47	47	46	0	0.00	23?	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	94	001	87	87	71	122	53	52	50	43	0	0.00	23?	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	95	001	95	95	77	122	101	72	70	54	0	0.00	20?	064
30-031-0002	2	2	BOZEMAN	GALLATIN	CITY BUILDING, 34 NOR	96	001	40	39	85	46	43	43	41	41	0	0.00	23?	064
30-031-0008	1	2	BELGRADE	GALLATIN	CONAGRA	91	001	32	32	70	16	127	123	110	101	0	0.00	56?	063
30-031-0008	1	2	BELGRADE	GALLATIN	CONAGRA	92	001	108	106	85	125	133	131	97	89	0	0.00	42?	063
30-031-0008	1	2	BELGRADE	GALLATIN	CONAGRA	93	001	118	118	96	122	137	121	107	106	0	0.00	43?	063
30-031-0008	1	2	BELGRADE	GALLATIN	CONAGRA	94	001	94	94	76	122	93	81	74	74	0	0.00	38?	063
30-031-0008	1	2	BELGRADE	GALLATIN	CONAGRA	95	001	97	96	78	122	148	124	91	82	0	0.00	35?	063
30-031-0008	1	2	BELGRADE	GALLATIN	CONAGRA	96	001	37	37	60	60	54	52	51	49	0	0.00	32?	063
30-031-0012	1	3	W YLLSTN	GALLATIN	FIREHOLE,W YLLSTN(FIR	95	001	15	15	83	6	53	46	42	39	0	0.00	25?	063
30-031-0012	1	3	W YLLSTN	GALLATIN	FIREHOLE,W YLLSTN(FIR	96	001	41	41	89	44	61	54	50	44	0	0.00	25?	063
30-053-0012	1	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	85	001	26	26	100	26	114	114	98	97	0	0.00	59?	052
30-053-0012	1	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	86	001	45	45	100	45	171	165	158	154	3	18.40	84?	052
30-053-0012	1	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	87	001	18	18	100	18	234	226	178	171	4	24.00	105?	052
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	87	001	110	109	88	124	187	176	154	148	2	2.19	60?	064
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	88	001	344	344	94	366	256	252	239	231	13	14.25	65	064
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	89	001	301	301	82	365	253	203	166	166	7	7.65	58?	064
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	90	001	333	333	91	365	254	221	209	203	12	13.67	57	064

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA
EXCEPTIONAL EVENT DATA EXISTS IN AT LEAST ONE OF THE ABOVE SITES BUT IS NOT INCLUDED IN THE SUMMARY CALCULATIONS

PM-10 TOTAL 0-10UM (81102)

UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	SCHEDULED NUM OBS	NUM OBS	% OBS	NUM REQ	MAXIMUM VALUES 1ST	2ND	3RD	4TH	VALS > 150 MEAS	EST	WTD ARITH MEAN	METH
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	91	001	346	346	95	365	226	225	222	216	6	6.14	50	064
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	92	001	148	145	94	155	139	131	121	106	0	0.00	44?	064
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	93	001	114	114	93	122	104	89	84	83	0	0.00	41?	064
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	94	001	117	117	95	122	105	102	99	97	0	0.00	37?	064
30-053-0012	2	2	LIBBY	LINCOLN	LINCOLN CO COURTHOUSE	95	001	40	40	89	46	93	89	88	83	0	0.00	44?	064
30-053-0019	1	2	TROY	LINCOLN	TROY HIGH SCHOOL,116	91	001	45	45	98	45	56	52	49	48	0	0.00	29?	063
30-053-0019	1	2	TROY	LINCOLN	TROY HIGH SCHOOL,116	92	001	93	93	75	125	73	70	65	57	0	0.00	26?	063
30-053-0019	1	2	TROY	LINCOLN	TROY HIGH SCHOOL,116	93	001	108	108	88	122	87	68	66	62	0	0.00	28?	063
30-053-0019	1	2	TROY	LINCOLN	TROY HIGH SCHOOL,116	94	001	109	108	88	122	90	82	65	65	0	0.00	27?	063
30-053-0019	1	2	TROY	LINCOLN	TROY HIGH SCHOOL,116	95	001	58	57	93	60	82	59	56	56	0	0.00	25?	063
30-053-1005	1	2	EUREKA	LINCOLN	LINCOLN ELEC CO-OP, H	87	001	28	28	61	16	102	95	90	85	0	0.00	48?	064
30-053-1005	1	2	EUREKA	LINCOLN	LINCOLN ELEC CO-OP, H	88	001	174	174	95	124	121	106	101	100	0	0.00	38	064
30-053-1005	1	2	EUREKA	LINCOLN	LINCOLN ELEC CO-OP, H	89	001	165	165	90	123	127	115	111	102	0	0.00	33	064
30-053-1005	1	2	EUREKA	LINCOLN	LINCOLN ELEC CO-OP, H	90	001	159	159	87	123	116	114	110	97	0	0.00	33	064
30-053-1005	1	2	EUREKA	LINCOLN	LINCOLN ELEC CO-OP, H	91	001	147	147	80	123	133	126	121	114	0	0.00	37?	064
30-053-1005	1	2	EUREKA	LINCOLN	LINCOLN ELEC CO-OP, H	92	001	85	85	92	62	132	129	112	111	0	0.00	41?	064
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE HIL	90	026	56	56	89	63	38	35	32	31	0	0.00	17	062
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE HIL	91	026	58	58	92	63	39	37	34	31	0	0.00	16	062
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE HIL	92	026	92	75	95	79	55	52	46	45	0	0.00	17	062
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE HIL	93	026	120	119	97	123	54	46	37	35	0	0.00	14	062
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE HIL	94	026	115	115	94	123	47	41	40	33	0	0.00	15	062
30-087-0700	1	4	COLSTRIP	ROSEBUD	MPC #3, CEDAR AVE HIL	95	026	116	116	94	123	55	47	45	43	0	0.00	13	062

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

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PM-10 TOTAL 0-10UM (81102)

METHODS:	CODE	COLLECTION METHOD	ANALYSIS METHOD
	000	MULTIPLE METHODS	MULTIPLE METHODS
	052	HI-VOL-SA321A	GRAVIMETRIC
	062	HI-VOL-WEDDING-INLET	GRAVIMETRIC
	063	HI-VOL-SA/GMW-1200	GRAVIMETRIC
	064	HI-VOL-SA/GMW-321-B	GRAVIMETRIC

-

DATE 96/08/27
AMP450

EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)
AIR QUALITY SUBSYSTEM
QUICK LOOK REPORT
MONTANA

PM-10 TOTAL 0-10UM (81102)

UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	MT	CITY	COUNTY	ADDRESS	YR	REP ORG	SCHEDULED NUM OBS	NUM OBS	% OBS	NUM REQ	MAXIMUM VALUES 1ST	2ND	3RD	4TH	VALS > 150 MEAS	EST	WTD ARITH MEAN	METH
30-049-0001	1	2	HELENA	L&C	COGSWELL BLDG, 1401 L	85	001	36	36	100	36	80	64	60	48	0	0.00	32?	052
30-049-0001	1	2	HELENA	L&C	COGSWELL BLDG, 1401 L	86	001	55	55	100	55	140	118	105	101	0	0.00	37?	052
30-049-0001	1	2	HELENA	L&C	COGSWELL BLDG, 1401 L	87	001	18	18	100	18	71	46	43	37	0	0.00	28?	052
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	87	001	72	69	88	78	67	65	55	54	0	0.00	24?	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	88	001	171	171	93	184	101	79	74	70	0	0.00	23	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	89	001	156	156	85	183	106	74	73	70	0	0.00	19?	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	90	001	134	133	87	183	63	48	44	42	0	0.00	18?	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	91	001	56	56	89	63	88	51	49	40	0	0.00	17	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	92	001	55	55	86	64	93	63	57	53	0	0.00	23	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	93	001	59	59	94	63	68	67	61	50	0	0.00	22	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	94	001	56	56	89	63	40	39	34	32	0	0.00	18	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	95	001	57	57	90	63	61	44	38	37	0	0.00	15	064
30-049-0001	2	2	HELENA	L&C	COGSWELL BLDG, 1401 L	96	001	12	12	38	32	57	30	26	19	0	0.00	28?	064
30-049-0018	1	3	HELENA	L&C	LINCOLN SCHOOL PARKIN	88	000	49	49	53	16	110	106	72	70	0	0.00	35?	064
30-049-0018	1	3	HELENA	L&C	LINCOLN SCHOOL PARKIN	89	000	55	55	61	90	119	98	93	84	0	0.00	34?	064
30-049-0018	1	2	HELENA	L&C	LINCOLN SCHOOL PARKIN	91	001	39	37	80	45	142	95	91	87	0	0.00	45?	064
30-049-0018	1	2	HELENA	L&C	LINCOLN SCHOOL PARKIN	92	001	92	77	82	119	123	119	93	92	0	0.00	35?	064
30-049-0018	1	2	HELENA	L&C	LINCOLN SCHOOL PARKIN	93	001	105	104	85	119	93	91	76	72	0	0.00	34?	064
30-049-0018	1	2	HELENA	L&C	LINCOLN SCHOOL PARKIN	94	001	112	95	77	119	95	93	70	68	0	0.00	30?	064
30-049-0018	1	2	HELENA	L&C	LINCOLN SCHOOL PARKIN	95	001	71	71	76	63	76	75	73	62	0	0.00	24?	064
30-049-0018	1	3	HELENA	L&C	LINCOLN SCHOOL PARKIN	96	001	15	14	44	32	44	39	33	28	0	0.00	32?	064
30-049-0719	1	2	EAST HELEN	L&C	HADFIELD, 101 WEST MA	88	001	66	65	71	47	94	88	80	72	0	0.00	38?	063
30-049-0719	1	2	EAST HELEN	L&C	HADFIELD, 101 WEST MA	89	001	168	168	92	123	73	69	69	63	0	0.00	28	063
30-049-0719	1	2	EAST HELEN	L&C	HADFIELD, 101 WEST MA	90	001	165	165	90	123	63	61	60	56	0	0.00	28	063
30-049-0719	1	2	EAST HELEN	L&C	HADFIELD, 101 WEST MA	91	001	132	132	72	123	94	70	67	63	0	0.00	28?	063
30-049-0719	1	2	EAST HELEN	L&C	HADFIELD, 101 WEST MA	92	001	144	144	78	124	93	85	85	77	0	0.00	33?	063
30-049-0719	1	2	EAST HELEN	L&C	HADFIELD, 101 WEST MA	93	001	36	36	80	30	119	77	72	72	0	0.00	46?	063
30-063-0020	1	2	MISSOULA	MISSOULA	ROSE PARK	84	004	22	22	100	22	142	109	107	83	0	0.00	52?	052
30-063-0020	1	2	MISSOULA	MISSOULA	ROSE PARK	85	004	13	13	100	13	257	135	134	116	1	1.00	94?	052
30-063-0020	1	2	MISSOULA	MISSOULA	ROSE PARK	86	004	321	321	100	321	240	225	216	213	10	10.71	49?	052
30-063-0020	1	2	MISSOULA	MISSOULA	ROSE PARK	87	004	79	79	81	23	276	245	205	193	5	6.34	52?	052
30-063-0020	2	2	MISSOULA	MISSOULA	ROSE PARK	87	004	18	18	20	16	49	40	36	36	0	0.00	23?	064

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PM-10 TOTAL 0-10UM (81102) UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	SCHEDULED NUM OBS	NUM OBS	% OBS	NUM REQ	MAXIMUM VALUES 1ST	2ND	3RD	4TH	VALS > MEAS	150 EST	WTD ARITH MEAN	METH
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	84	004	24	24	77	16	138	127	116	103	0	0.00	57?	052
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	85	004	5	5	100	5	90	87	76	45	0	0.00	66?	052
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	86	004	253	253	100	253	238	227	177	173	6	8.44	51?	052
30-063-0024	1	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	87	004	30	30	100	30	200	162	157	149	3	10.00	56?	052
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	87	004	214	87	94	48	150	142	131	125	0	0.00	39?	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	88	004	323	225	91	366	158	133	129	117	1	1.00	38?	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	89	004	343	343	94	365	194	171	131	126	2	2.05	36	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	90	004	324	324	89	365	134	109	109	103	0	0.00	29	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	91	004	322	322	88	365	143	135	127	126	0	0.00	30	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	92	004	252	252	87	214	89	79	79	78	0	0.00	32	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	93	001	196	196	92	63	91	89	85	74	0	0.00	29	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	94	001	181	181	85	63	82	79	74	71	0	0.00	27?	064
30-063-0024	2	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	95	001	130	127	92	63	83	77	77	68	0	0.00	27?	064
30-063-0024	2	3	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	96	001	23	16	50	32	102	93	89	83	0	0.00	29?	064
30-063-0031	1	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	86	004	30	30	100	30	143	139	114	100	0	0.00	40?	052
30-063-0031	1	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	87	004	32	32	100	32	180	125	114	108	1	1.00	51?	052
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	87	004	84	84	90	78	169	154	91	87	1	1.00	37?	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	88	004	344	233	95	366	133	122	114	112	0	0.00	37?	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	89	004	339	339	93	365	239	130	127	111	1	1.10	37	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	90	004	294	294	81	365	122	116	104	99	0	0.00	33?	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	91	004	320	320	88	365	140	126	123	110	0	0.00	32	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	92	004	264	264	91	214	73	71	67	65	0	0.00	29	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	93	001	126	126	91	63	121	100	98	94	0	0.00	31	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	94	001	54	53	84	63	70	46	45	44	0	0.00	25?	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	95	001	58	58	92	63	67	53	49	46	0	0.00	26	064
30-063-0031	2	2	MISSOULA	MISSOULA	HEALTH DEPT, 301 WEST	96	001	16	16	50	32	51	50	36	31	0	0.00	30?	064
30-081-0001	1	2	HAMILTON	RAVALLI	RAVALLI CO COURTHSE	86	001	33	33	100	33	112	96	91	82	0	0.00	42?	052
30-081-0001	1	2	HAMILTON	RAVALLI	RAVALLI CO COURTHSE	87	001	15	15	100	15	83	73	69	56	0	0.00	38?	052
30-081-0001	2	2	HAMILTON	RAVALLI	RAVALLI CO COURTHSE	87	001	24	24	75	32	56	43	38	27	0	0.00	21?	064
30-081-0001	1	2	HAMILTON	RAVALLI	RAVALLI CO COURTHSE	94	001	26	26	54	48	88	73	41	38	0	0.00	20?	064
30-081-0001	1	2	HAMILTON	RAVALLI	RAVALLI CO COURTHSE	95	001	57	57	90	63	67	63	55	38	0	0.00	19	064
30-081-0001	1	2	HAMILTON	RAVALLI	RAVALLI CO COURTSHE	96	001	17	17	53	32	55	39	33	27	0	0.00	21?	064
30-081-0002	1	2	HAMILTON	RAVALLI	MT GOLD REALTY BLDG	94	001	25	25	93	27	92	81	60	51	0	0.00	32?	064
30-081-0002	1	2	HAMILTON	RAVALLI	MT GOLD REALTY BLDG	95	001	52	52	83	63	78	74	70	50	0	0.00	26?	064
30-081-0002	1	2	HAMILTON	RAVALLI	MT GOLD REALTY BLDG	96	001	17	17	53	32	96	58	55	47	0	0.00	34?	064
30-081-0003	1	3		RAVALLI	STEVENSVILLE RANGER S	94	819	23	23	72	32	60	52	38	34	0	0.00	22?	063
30-081-0003	1	3		RAVALLI	STEVENSVILLE RANGER S	95	819	43	43	68	63	61	47	44	43	0	0.00	20?	063
30-081-0003	1	3		RAVALLI	STEVENSVILLE RANGER S	96	819	11	11	69	16	56	30	25	22	0	0.00	20?	063

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PM-10 TOTAL 0-10UM (81102) UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	MT	CITY	COUNTY	ADDRESS	YR	REP ORG	NUM OBS	SCHEDULED NUM OBS	% OBS	NUM REQ	MAXIMUM VALUES 1ST	2ND	3RD	4TH	VALS MEAS	> 150 EST	WTD ARITH MEAN	METH
30-081-0004	1	3		RAVALLI	WFORK RANGER STATION;	94	819	24	22	69	32	35	33	18	17	0	0.00	9?	063
30-081-0004	1	3		RAVALLI	WFORK RANGER STATION;	95	819	55	55	87	63	44	30	12	12	0	0.00	6	063
30-081-0004	1	3		RAVALLI	WFORK RANGER STATION;	96	819	5	5	16	32	9	8	6	4	0	0.00	6?	063
30-089-0003	1	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	85	001	26	26	100	26	89	85	84	78	0	0.00	47?	052
30-089-0003	1	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	86	001	46	46	100	46	113	113	91	83	0	0.00	51?	052
30-089-0003	1	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	87	001	13	13	100	13	128	105	102	84	0	0.00	82?	052
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	87	001	62	62	79	78	125	101	99	94	0	0.00	41?	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	88	001	247	246	89	276	160	142	132	129	1	1.00	39?	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	89	001	340	340	93	365	219	152	145	136	1	1.03	36	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	90	001	328	328	90	365	261	215	158	140	3	3.46	38	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	91	001	351	351	96	365	185	156	148	141	2	2.12	32	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	92	001	224	224	92	243	149	128	121	118	0	0.00	32?	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	93	001	106	106	86	121	112	107	100	96	0	0.00	34?	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	94	001	112	112	91	121	140	102	102	101	0	0.00	32?	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	95	001	110	110	89	121	103	97	96	94	0	0.00	27?	064
30-089-0003	2	2	THOMPSON F	SANDERS	SANDERS CO COURTHOUSE	96	001	40	40	87	46	150	109	106	99	0	0.00	37?	064
30-093-0005	1	2	BUTTE	SILVER BOW	GREELEY SCHOOL	85	001	28	28	68	41	302	235	235	232	7	32.20	54?	052
30-093-0005	1	2	BUTTE	SILVER BOW	GREELEY SCHOOL	86	001	40	40	100	40	213	212	211	190	6	54.68	69?	052
30-093-0005	1	2	BUTTE	SILVER BOW	GREELEY SCHOOL	87	001	16	16	100	16	163	103	80	56	1	8.18	51?	052
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	87	001	122	70	90	124	225	188	186	174	4	4.09	39?	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	88	001	350	269	97	366	283	267	232	229	11	11.13	39?	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	89	001	335	335	92	365	158	134	129	128	1	1.14	29	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	90	001	324	324	89	365	92	85	85	78	0	0.00	25	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	91	001	336	336	92	365	125	118	111	107	0	0.00	27	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	92	001	194	194	80	243	132	127	103	101	0	0.00	29?	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	93	001	112	112	91	121	92	89	84	83	0	0.00	29?	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	94	001	113	113	92	121	64	64	60	60	0	0.00	26?	064
30-093-0005	2	2	BUTTE	SILVER BOW	GREELEY SCHOOL	95	001	83	82	88	63	96	68	65	61	0	0.00	21?	064
30-093-0005	2	3	BUTTE	SILVER BOW	GREELEY SCHOOL	96	001	14	14	44	32	69	54	47	38	0	0.00	34?	064
30-111-0065	1	3	BILLINGS	YELLOWSTON	LOCKWOOD COUNTY PARK	90	002	16	16	35	16	75	53	53	46	0	0.00	36?	063
30-111-0065	1	3	BILLINGS	YELLOWSTON	LOCKWOOD COUNTY PARK	91	002	34	34	76	45	70	65	55	48	0	0.00	26?	063
30-111-0077	1	2	BILLINGS	YELLOWSTON	FEDERAL CREDIT UNION,	89	002	7	7	44	16	47	29	24	19	0	0.00	22?	062
30-111-0077	1	2	BILLINGS	YELLOWSTON	FEDERAL CREDIT UNION,	90	002	59	55	87	63	57	46	46	43	0	0.00	24	062
30-111-0077	1	2	BILLINGS	YELLOWSTON	FEDERAL CREDIT UNION,	91	002	60	60	95	63	51	50	49	43	0	0.00	23	062
30-111-0077	1	2	BILLINGS	YELLOWSTON	FEDERAL CREDIT UNION,	92	001	67	67	72	93	82	49	48	40	0	0.00	27?	062
30-111-0078	1	2	BILLINGS	YELLOWSTON	DIAMOND PARKING LOT,	92	001	19	19	61	16	55	40	40	35	0	0.00	23?	062
30-111-0078	1	2	BILLINGS	YELLOWSTON	DIAMOND PARKING LOT,	93	001	120	120	98	123	65	57	56	55	0	0.00	26	062
30-111-0078	1	2	BILLINGS	YELLOWSTON	DIAMOND PARKING LOT,	94	001	31	31	51	61	78	62	59	50	0	0.00	26?	062

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PM-10 TOTAL 0-10UM (81102) UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	SCHEDULED NUM OBS	NUM OBS	% OBS	NUM REQ	----MAXIMUM VALUES----- 1ST	2ND	3RD	4TH	VALS > 150 MEAS	EST	WTD ARITH MEAN	METH
30-111-0079	1	2	BILLINGS	YELLOWSTON	MT OLIVE LUTHERAN CHU	94	002	30	30	94	32	52	46	41	38	0	0.00	24?	062
30-111-0079	1	2	BILLINGS	YELLOWSTON	MT OLIVE LUTHERAN CHU	95	002	59	59	94	63	32	32	30	30	0	0.00	17	062
30-111-0079	1	2	BILLINGS	YELLOWSTON	MT OLIVE LUTHERAN CHU	96	002	17	17	53	32	43	33	26	25	0	0.00	22?	062
30-111-0081	1	2	BILLINGS	YELLOWSTON	NORWEST, 130 NORTH 27	94	002	28	28	88	32	57	46	39	37	0	0.00	26?	062
30-111-0081	1	2	BILLINGS	YELLOWSTON	NORWEST, 130 NORTH 27	95	002	59	59	94	63	54	35	35	35	0	0.00	20	062
30-111-0081	1	2	BILLINGS	YELLOWSTON	NORWEST, 130 NORTH 27	96	002	17	17	53	32	37	36	32	24	0	0.00	23?	062
30-111-1065	1	3	BILLINGS	YELLOWSTON	LOCKWOOD PARK	96	005	17	17	53	32	58	43	33	22	0	0.00	25?	064

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PM-10 TOTAL 0-10UM (81102)

METHODS:	CODE	COLLECTION METHOD	ANALYSIS METHOD
	052	HI-VOL-SA321A	GRAVIMETRIC
	062	HI-VOL-WEDDING-INLET	GRAVIMETRIC
	063	HI-VOL-SA/GMW-1200	GRAVIMETRIC
	064	HI-VOL-SA/GMW-321-B	GRAVIMETRIC

DATE 96/08/27
AMP450

EPA AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)
AIR QUALITY SUBSYSTEM
QUICK LOOK REPORT
MONTANA

(*) PM-10 TOTAL 0-10UM (81102) UNITS: 001 UG/CU METER (25 C)

SITE ID	POC	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	SCHEDULED NUM OBS	NUM OBS	% OBS	NUM REQ	MAXIMUM VALUES 1ST	2ND	3RD	4TH	VALS > 150 MEAS	EST	WTD ARITH MEAN	METH
30-029-0039	2	2	WHITEFISH	FLATHEAD	MARKUS FOODS	95	001	76	76	99	13	114	105	104	89	0	0.00	35?	079
30-029-0039	2	2	WHITEFISH	FLATHEAD	MARKUS FOODS	96	063	60	60	66	91	73	69	45	44	0	0.00	24?	079
30-029-1015	3	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC	95	001	94	94	99	93	105	80	78	69	0	0.00	21?	079
30-029-1015	3	2	KALISPELL	FLATHEAD	UNIVERSAL ATHLETIC	96	063	60	60	66	91	76	62	61	54	0	0.00	24?	079
30-029-1018	1	3	KALISPELL	FLATHEAD	EAST MAINTENANCE BLDG	93	001	85	85	92	92	51	43	41	41	0	0.00	22?	079
30-029-1018	1	3	KALISPELL	FLATHEAD	EAST MAINTENANCE BLDG	94	001	365	365	100	365	83	74	70	68	0	0.00	23	079
30-029-1018	1	3	KALISPELL	FLATHEAD	EAST MAINTENANCE BLDG	95	001	269	269	99	273	62	55	50	46	0	0.00	19?	079
30-049-0018	3	3	HELENA	L&C	LINCOLN SCHOOL PK LOT	93	009	87	87	95	92	79	76	72	72	0	0.00	33?	079
30-049-0018	3	3	HELENA	L&C	LINCOLN SCHOOL PK LOT	94	009	365	365	100	365	133	101	97	95	0	0.00	29	079
30-049-0018	3	3	HELENA	L&C	LINCOLN SCHOOL PK LOT	95	009	353	353	97	365	109	91	78	77	0	0.00	24	079
30-049-0018	3	2	HELENA	L&C	LINCOLN SCHOOL PK LOT	96	009	121	121	66	182	93	64	64	62	0	0.00	24?	079
30-053-0018	1	2	LIBBY	LINCOLN	CO COURTHOUSE ANNEX	93	064	84	84	99	15	99	90	87	80	0	0.00	46?	079
30-053-0018	1	2	LIBBY	LINCOLN	CO COURTHOUSE ANNEX	94	064	350	350	96	365	120	119	113	109	0	0.00	36	079
30-053-0018	1	2	LIBBY	LINCOLN	CO COURTHOUSE ANNEX	95	064	358	358	98	365	88	87	86	83	0	0.00	29	079
30-053-0018	1	2	LIBBY	LINCOLN	CO COURTHOUSE ANNEX	96	064	148	148	81	182	113	94	91	87	0	0.00	33?	079
30-063-0024	4	3	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	92	004	118	118	64	184	92	84	81	79	0	0.00	32?	041
30-063-0024	4	3	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	93	004	150	150	82	182	112	101	99	92	0	0.00	45?	041
30-063-0024	4	3	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	94	004	170	170	93	182	105	94	88	85	0	0.00	33?	000
30-063-0024	4	3	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	95	004	331	331	91	365	83	81	77	70	0	0.00	24	079
30-063-0024	4	2	MISSOULA	MISSOULA	BOYD PARK, 3100 WASHB	96	004	121	121	66	182	114	112	103	97	0	0.00	23?	079
30-081-0003	2	3		RAVALLI	STEVENSVILLE RANGER S	94	819	138	138	75	184	81	79	64	61	0	0.00	24?	079
30-081-0003	2	3		RAVALLI	STEVENSVILLE RANGER S	95	819	315	315	86	365	63	60	58	57	0	0.00	18	079
30-081-0003	2	3		RAVALLI	STEVENSVILLE RANGER S	96	819	118	118	65	182	53	53	52	52	0	0.00	16?	079
30-093-0005	4	3	BUTTE	SILVER BOW	GREELEY SCHOOL	93	065	148	148	98	102	75	71	66	64	0	0.00	20?	079
30-093-0005	4	3	BUTTE	SILVER BOW	GREELEY SCHOOL	94	065	351	351	96	365	81	80	75	67	0	0.00	23	079
30-093-0005	4	3	BUTTE	SILVER BOW	GREELEY SCHOOL	95	065	357	357	98	365	97	84	83	73	0	0.00	21	079
30-093-0005	4	2	BUTTE	SILVER BOW	GREELEY SCHOOL	96	065	144	144	79	182	55	52	48	47	0	0.00	19?	079

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PM-10 TOTAL 0-10UM (81102)

METHODS: CODE	COLLECTION METHOD	ANALYSIS METHOD
000	MULTIPLE METHODS	MULTIPLE METHODS
041	BAM-102-CONTINUOUS MONITOR	BETA-ATTENUATION
079	INSTRUMENTAL-R&P-SA246B-INLET	TEOM-GRAVIMETRIC

(*) PM_{10} data (in 24-hour averages) collected by continuous instruments (hourly values)

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